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THE INTERNATIONAL 500 • THE WORLD'S BIGGEST COMPANIES

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FORTUNE

THE INTERNATIONAL 50

JULY 31, 1989

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ABOVE: The good life in Florida, a retirees' mecca, photographed by Brian Smith.

COVER: These future retirees, all Texans, were photographed in Houston by E. J. Camp.

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Too few people realize how much money they should be saving now to ensure a comfortable retirement. Instead they are living as though there's no tomorrow—even as Congress spends Social Security money and cost-conscious companies pare down pension benefits. Particularly if you're a baby-boomer, you will have to face up to a tough choice: Save more now or work more later. *by David Kirkpatrick*

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"People think scientists are weird, skinny men with bushy beards and steaming beakers."

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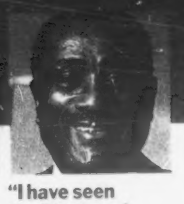

"I have seen the Black and White future, and it works."

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EDITOR'S DESK

International editor Donald Holt (center) with FORTUNE's world-class world list team

LONG BEFORE "globalism" entered the vocabulary of business, FORTUNE was the first publication to peel back the opaque veil of international accounting and identify the world's mightiest enterprises. We began our international directories in 1957—and we have been expanding and refining them ever since. This year FORTUNE's lists—regarded from Tokyo to Toledo as the definitive scorecards on the performance of the world's largest corporations—continue to break new ground.

In addition to ranking the 500 largest industrial companies outside the U.S. and the 100 largest non-U.S. banks, we have expanded our list of the entire world's largest industrials—both in the U.S. and abroad—from 50 to 100. And, for the first time, we rank the world's 50 largest banks. Altogether, this year's lists give managers a clearer idea of how they measure up against their international rivals.

How fare the global titans? Reporters Susan Kuhn and David Morrow, who called on correspondents from Stockholm to Santiago to Singapore in amassing the thousands of figures that make up the lists, discovered that non-U.S. corporations are singing the same happy song as their American cousins. Says Morrow: "Restructuring and the pursuit of efficiency are worldwide phenomena. Only 16 companies on the International 500 list lost money last year, a record low." Kuhn was impressed by the tremendous overseas strength of U.S. companies. If they stood alone, for example, Ford's subsidiary in West Germany and GM's in Canada would each rank among the world's 100 largest industrials.

By contrast, reporters Jacob Park and Joan Viebranz, who assembled the bank lists, discovered that while the biggest U.S. banks are among the world's most profitable, few can match assets with their overseas counterparts. The tally among the top 50 banks: Japan, 23; Europe, 20; U.S., 4.

Shawn Tully

Our international editor Donald Holt and chief of reporters Evelyn Benjamin supervised the team of reporters, photo researchers, and graphic artists in the huge job of marrying the words, numbers, and images that make up this year's trove. FORTUNE's editorial production department, headed by Donald Biglands, converted the reams of data and text into the 27-page package of stories, lists, and charts that begins on page 279.

To get closer to the thinking of the people shaping the world economy, FORTUNE tapped its own expanding global network. We joined last year with French publisher Hachette to launch FORTUNE *France* and this year with the Italian publisher Mondadori to start FORTUNE *Italia*. So when Fiat Chairman Giovanni Agnelli accepted FORTUNE *Italia* managing editor Andrea Monti's request for a rare on-the-record interview, FORTUNE *France* managing editor Claude Bunodière and our own European editor, Richard Kirkland, flew to Turin to discuss what one of the world's leading automakers sees ahead. The interview, which will also appear in our French- and Italian-language sister publications, begins on page 133.

An article in an early test issue of FORTUNE *Italia* additionally provided the inspiration for the revealing portraits, beginning on page 176, of a little-known group of internationally minded managers. They are the Palestinian entrepreneurs who nurtured flourishing businesses in the arid environment of the Palestinian diaspora. Our Paris bureau chief, Shawn Tully, traveled from the blazing sands of Kuwait to the chilly damp of Zurich to hear firsthand how these self-made tycoons long to build an economy in the homeland they dream of creating.

David Kirkpatrick

And what about life beyond the world of work? In his report "Will You Be Able to Retire?" associate editor David Kirkpatrick discovers that many of today's postwar baby-boom employees, now reaching midcareer, may have to labor longer than they think. Do *you* know what you'll need—and what you'll need to do—to ensure financial security after you pack it in? To find out, read Kirkpatrick's cover story, beginning on page 56.

Marshall Loeb

MANAGING EDITOR

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taken no fancy dives. And the yen remains strong against the dollar despite a recent brief plunge. Progress has even been made on the trade front: U.S. Trade Representative Carla Hills satisfactorily concluded a bitter dispute, allowing **Motorola** increased access to Japan's cellular phone market.

Meanwhile, Uno, who assumed office only June 3, may not last much longer. Japan's business community hopes that his place will be taken by Masayoshi Ito. Ito, 75, was offered the job before Uno, but said no because he did not believe the LDP was serious about reform. If Ito takes the helm, he would at least provide stability while the bureaucrats continue to keep Japan on its triumphant course. **– Carla Rapoport**

ESOPs AS POISON

■ Major corporations are rushing to set up or expand employee stock ownership plans, or ESOPs (see table for a sampling). The some 100 that have initiated them this year include companies that are installing ESOPs as tax-sheltered employee benefit plans. But many managers see in ESOPs a new way to defend themselves against hostile takeovers.

This latest in poison pills follows 1988's raid on **Polaroid** by Roy Disney's **Shamrock Holdings**. Polaroid was in the process of creating an ESOP, giving employees 14% of the company, when Shamrock attacked. Under Delaware law, where Polaroid and most big U.S. corporations are registered, a takeover bid must be accepted by the holders of at least 85% of nonaligned shares, which excludes inside directors. Since employees with ESOP shares and trustees with power to cast ESOP votes usu-

JUST DESERTS & TWO DIFFERENT SETS OF WHEELS

▶ Cartier International CEO Alain Perrin, at rear, torched a pile of counterfeit Cartier shirts in Madrid. Knockoffs, made mostly in the Far East, cost makers of expensive, name-brand goods plenty. U.S. manufacturers lose at least $6 billion a year.

▼ Along with PepsiCo's other 100,000 employees, truck driver Tom Atherton, 36, got stock options equal to 10% of his pay. "A nest egg for my three kids' college," said Atherton, at work in New Hampshire. Only Pfizer has a similar egalitarian plan.

▲ Plugged into an extension cord, this battery-powered car gets a charge outside Peugeot's research center near Paris. In 1991 you may see such vehicles in Los Angeles, where the city will promote them. They cost about $15,000 each, plus 5 cents a mile for juice. It must be recharged for ten hours every 60 miles. Top speed: 60 mph.

▼ Paul Bilzerian, 39, Singer's former boss, may never live here: He faces fines of up to $2.3 million and up to 45 years in jail for fraud and other felony convictions. But his Tampa mansion keeps on growing. Cost (says he): $6 million.

▲ Forget about beating the dealer. The Mazda Miata is so hot, buyers have to top the $18,334 fully equipped sticker price by up to $4,000 to get one.

ally side with management, a big ESOP plan can stop a hostile bid. Future raiders may well sue trustees, claiming violation of fiduciary duty to employee shareholders. Steven Goldberg, a partner of Theisen Lank Mulford & Goldberg, a Wilmington law firm, says that a company's defense will be stronger if its ESOP is in place before a takeover bid.

Congress is considering legislation that would lessen tax benefits for lenders who finance ESOPs, making some plans more expensive. Yet the ESOP boom is likely to continue as a defense against takeover. Says Lilli Gordon, research director of Analysis Group, a Belmont, Massachusetts, economics and financial consulting firm: "ESOPs enable management to place a large block of shares in friendly hands, quickly." – **Wilton Woods**

CORPORATIONS WITH ESOPs IN PLACE

Company	ESOP stake
Anheuser-Busch	4%
General Mills	2%
ITT	8%
Lockheed	18%
McDonald's	3%
PPG Industries	14%
Procter & Gamble	21%
Quaker Oats	3%

SOURCE: ANALYSIS GROUP

OF FAME, FORTUNE, AND THE SUBWAY

■ What would you do if you won the New York State lottery? Answers are familiar to millions who travel New York City's subways, where a billboard campaign features real lotto players answering that very question. Now they can see how *Variety* executive publisher Gerry Byrne, the 28th to appear in the campaign so far, would spend the money. Says the self-confessed tinkerer: "I'd buy a FORTUNE 500 company and fix it."

"I've always loved to tinker.
So I'd buy a Fortune 500 company and fix it."
Gerry Byrne, Manhattan Publishing Inc.
NEW YORK LOTTO
All you need is a dollar and a dream.

See anyone you recognize? Byrne meets Byrne underground.

Have no fear, corporate defense squads. Byrne has been playing the lottery for five years and has collected a mere $10. The biggest lottery winners are those who stage them. In eight years annual sales have increased in the U.S. from $49.2 million in two states to $15 billion in 27, according to *Gaming & Wagering Business* magazine. The states' cumulative profit through June 1988: $31 billion. – **Julia Lieblich**

STRESS ON THE JOB? GO TO CALIFORNIA

■ Workers' disability compensation ain't what it used to be. In California, reported mental stress claims—stoked partly by classified ads like those shown here—have increased seven times since 1980 to 9,400 last year.

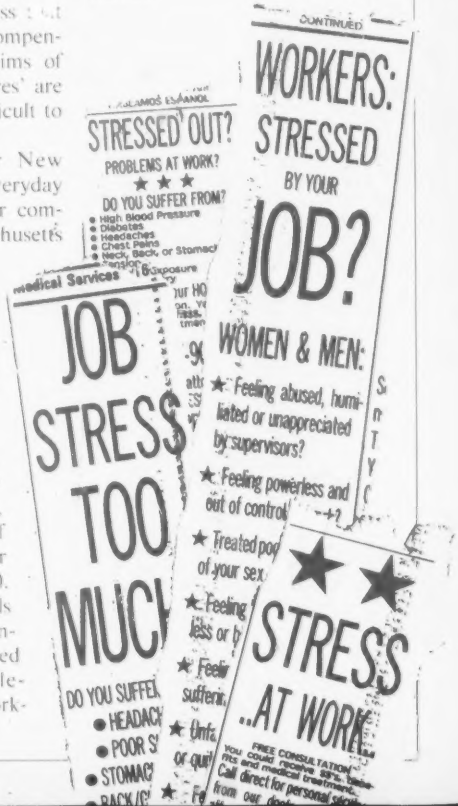
Different states impose different ground rules for worker compensation claims for stress. California is the most liberal. Under state law, explains Dr. Thomas Parry of the California Workers' Compensation Institute, a research organization whose members are insurance companies, "it is the *individual's* perception of stress that determines what is a compensable work injury. Claims of stress from 'job pressures' are very subjective and difficult to disprove."

In contrast, under New York law normal, everyday stress is not a basis for compensation. And Massachusetts excludes claims for stress brought on by such lawful job changes as demotions or transfers.

In California, most insurers do not think it's worth the effort to fight stress claims. Rather than spend close to $6,000 in legal costs, they settle nearly 80% of the cases out of court for an average of $7,450. The most recent totals are for 1987, when insurers paid an estimated $176 million in settlements. White-collar workers, many in clerical jobs, make two-thirds of all mental stress claims.

The seeming ease with which employees can wheedle money out of their employers has spawned a subcategory of the legal profession—lawyers who specialize in such claims on a contingency basis, usually pocketing about 13% of the settlement.

Employers and insurance companies obviously don't like the increasing number of claims, hence the Californians for Compensation Reform, which counts **Clorox**, **General Electric**, **Marriott**, **McDonnell Douglas**, and **Northrop** among its members. The group is backing a bill that, among other things, would make ordinary job stress something that employees must accept, just as they do their pay checks. – **Rahul Jacob**



WILL YOU BE ABLE TO RETIRE?

You can't count on a pension or Social Security the same way your parents did. If you're a baby-boomer, that leaves you a choice: Save more now or work more later. ■ *by David Kirkpatrick*

May your hands always be busy
May your feet always be swift
May you have a strong foundation
When the winds of changes shift . . .
May you stay forever young.
—"Forever Young," *by Bob Dylan, 48*

A PLEASING THOUGHT from a man who in 14 years will be eligible for Social Security. But in fact your feet eventually may begin to drag, and you may want to retire. When you do, will you have a strong foundation? Consider this: In an inflation-free world, the median FORTUNE subscriber, whose household income is about $83,000 and whose age is 45, will need $1.2 million in financial assets in order to retire at 65 without a reduction in his or her standard of living. Crank in an inflation rate of 4.5% and the figure rises to $2.8 million.

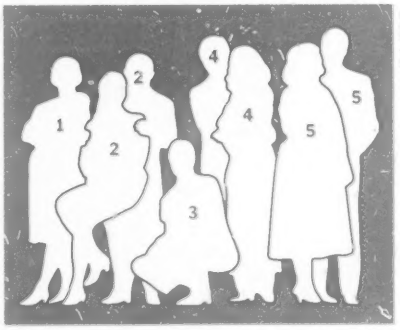
Getting together that kind of money promises to be harder than ever. Termites threaten the three-legged stool that Americans have traditionally relied on to provide for their retirement—Social Security, private pensions, and savings. Congress is spending your Social Security money, cost-conscious companies are pruning pensions, and future retirees are living it up today rather than saving for tomorrow.

All the while, the baby-boom generation, 78 million strong, is beginning to creep past the point—age 40—by which, the experts say, you should have begun planning for retirement. Too few have started preparing in earnest, and still fewer are saving on the scale required. Since boomers are healthier than their predecessors, they're likely to live longer. If these hard-working sorts finally vacate their offices at anything like 62, today's average retirement age, they will have the longest, and costliest, retirements in history.

And who's going to help them pick up the check? Don't count on the generation coming along. By the time the last weary boomer hits 65 in 2029, the ratio of workers to retirees will drop from about 3.3 to 1 today to less than 2 to 1. That could create tremendous economic conflict with an overtaxed "baby bust" generation. Faced with such shifting winds of change, your hands could stay busy for considerably longer than you'd expected. Says Steve Vernon, 36, an employee benefits expert with the Wyatt Co. consulting firm: "If they don't start actively planning for it, the future of retirement for the baby-boomers is work."

BENEFITS EXPERTS and financial planners observe that if you are over 50, your retirement plans are probably shipshape. Fearful memories of the Depression made many older Americans determined savers. Their timing was good too: They were at work during the country's most robust years of postwar economic growth, when employers were generous with benefits. Their investment in homes commonly yielded a return many times greater than inflation. Social Security looks reasonably secure for the next 20 years. And they were the fecund generation who spawned the baby boom. All those grown-up babies will be

REPORTER ASSOCIATE *Constance A. Gustke*



WHY SO MUCH?

■ **To calculate the total financial assets the Texans on the cover must have to retire at 65, Houston's Decker & Associates considered age as well as all current investments, household earnings, and desired post-retirement income. The numbers on the cover include the future lump-sum value of Social Security, pensions, and all savings. (1) Government-relations specialist Nancy Sims, who is 30, earns $32,000; (2) Karen and John Kelsey, 45 and 48, who are a realtor and a stockbroker, earn $500,000; (3) systems consultant Bill Brooksbank, 38, makes $78,600; (4) Lionel and Katherine Sosa, 50 and 35, run an ad agency and a public relations firm, respectively, and earn $165,000; (5) Anna Loraine and Charles Vienn, 46 and 49, a hospital lab supervisor and a marketing consultant, earn $60,000.**

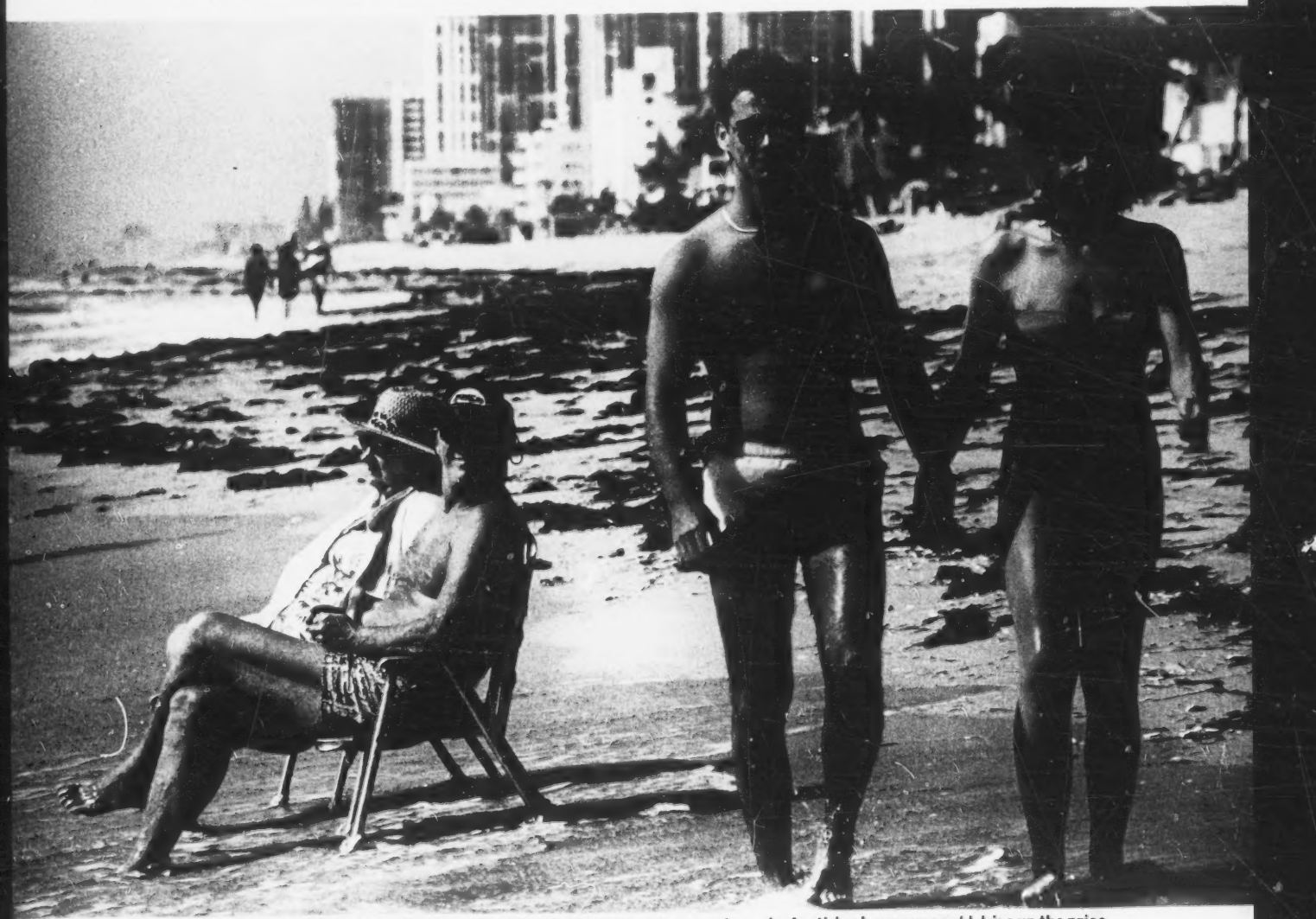
around to help bear the responsibility, and the expense, of what has come to be known as elder care.

If you are under 50, on the other hand, you may feel too busy to plan for retirement and too broke to save. The average workweek is up, average leisure time is down, and the average baby-boomer thinks time's winged chariot is running over his foot. Says Paul Hewitt, 37, executive director of the nonprofit Retirement Policy Institute: "The baby boom as a generation has been its own worst enemy. Whenever we wanted anything the price went up, and when we sold the price went down. So we got less for our labor and paid more for our houses. When we want to sell those houses the price will go down, and when we all want medical care in old age, prices will go up."

COLLAR many people in their 30s or 40s for a moment between the phone and the freeway and they'll facetiously volunteer that they'd love to retire tomorrow, but then admit that's about as deep as their reflections on the subject go. Says Ken Sandbank, a 32-year-old copywriter for the Chiat/Day advertising agency in New York: "I don't give much thought to retirement. It's intimidating. My identity is tied to my career."

While this may not seem that much of a departure from past practice—how many 40-year-olds have ever seriously planned for retirement?—some experts argue that insouciance is more widespread among this generation than among its predecessors. Says Donald L. Kanter, a psychologist and co-author of a new book called *The Cynical Americans: Living and Working in an Age of Discontent and Disillusion*: "These people have seen inflation, layoffs, and a stock market crash. Ordinarily, looking out for No. 1 would lead to planning for retirement. But if it seems society is going to hell, the whole effort isn't worth it."

So you go with blind optimism instead.



If the couple on the right want chairs on the beach in 2025, they'd better plan now: A crush of retiring boomers could drive up the price.

PHOTOGRAPH BY BRIAN SMITH

Baby-boomers' expectations of retirement remain high even when they haven't done enough planning or saving. Nancy Sims, 30, a Houston consultant, has a typical vision of the future: "I see my retirement as very active. I'll have enough money to live and do volunteer work for the arts. Also I'll travel." In May, Merrill Lynch released the results of a survey it conducted among 45- to 64-year-olds nationwide. The survey found that 74% expect a standard of living in retirement the same as or better than today's, and 59% want to retire before age 65. Yet only 18% save at least 20% of their income, a minimum for anyone who wants to leave the work force early.

Respondents in the Merrill survey also shared in the common misperception that if you have a substantial income, you're somehow insulated from downward mobility after retiring. Among those earning $50,000 or more, the number expecting no drop in their standard of living jumped to 86%. In fact, the more you make, the larger the share of it you need to save.

Most people find that about 70% of their preretirement income will maintain their standard of living. Social Security's maximum individual benefit is only $10,788 a year. Accordingly, the portion of earnings Social Security will replace diminishes rapidly as you climb the income scale. Someone with a typical company pension who earns $30,000 a year at retirement may not need to save at all, but someone who earns $125,000 will need savings that generate enough to replace 21% of preretirement income (see chart).

STEVEN B. ENRIGHT, a financial planner with Seidman Financial Services, says more than three-quarters of his clients earning $100,000 and up, who on average have assets of at least $1 million, cannot meet their anticipated financial goals in retirement without significantly increasing their saving. He's talking about people like John Kelsey, 48, a stockbroker with Smith Barney in Houston. He earns $500,000 a year with his real estate broker wife but didn't think about planning for retirement until recently. "When you're so busy doing things," Kelsey says, "you tend to think your career will grow so much you'll be able to save later. When you're on the leading edge of your profession there's a feeling of invulnerability."

Consider the vulnerability of that median FORTUNE subscriber, age 45 with a household income of $83,000. If his income increases 6% a year, no great shakes if inflation runs a constant 4.5% annually—assumptions also used in calculating what the cover subjects will need—he will be making $266,192 in 20 years, calculates Decker & Associates, a Houston firm that helps employers and employees figure the value of retirement benefits. Assume he will need 70% of that, or $186,305, to retire comfortably. To maintain his standard of living until he's 90 in the face of that same inflation rate, he will need to have assembled financial assets of $2.8 million by his retirement in 2009.

Don't assume you'll work to the end, advises gerontologist Robert Atchley. As he asks, "What will you do if you're disabled?"

Social Security should provide an inflation-adjusted $22,500 a year by then, which Decker figures is equivalent to the payout from an annuity worth $342,569 in that year. Assuming the subscriber has ten years of service with a typical large company, his pension benefits, which will pay $60,716 a year, are worth another $621,379. This median subscriber has an investment portfolio of $142,100, which should grow to $726,422, assuming an 8.5% after-tax return. On retirement these assets will total $1,690,370, leaving a shortfall of $1,146,177 to be made up from additional savings. That would mean setting aside 17% of his household's pretax income from here on in. To retire at 62, he ought to save something approaching 30%.

This news may come as a nasty surprise. "There is an abysmal lack of understanding of what retirement income is going to be," says Suzanne Kenney, manager of something called Employee Listening Services at Hewitt Associates, a compensation and benefits consulting firm. Hewitt's surveys find that only 49% of employees feel they have a good grasp of their retirement benefits, compared with 71% who say they understand all other benefits. In Kenney's focus groups she asks what percentage of their preretirement income employees think their pensions will provide. "People are afraid to even hazard a guess," she says. "We have frankly been shocked that people don't have any idea at all."

THE SHORT ANSWER about pensions is they probably aren't as good as you think they are. Many employers are moving away from defined benefit pensions, long the most popular type, in favor of so-called defined contribution plans. For employees who don't change jobs frequently, defined benefit plans are vastly preferable. They guarantee a monthly cash benefit based on an employee's salary and years of service. The employer funds the plan and insures employees get paid.

By contrast, in defined contribution plans, which include profit-sharing and 401(k) plans, the employer puts a certain amount into an individual's account each year, sometimes merely matching his contribution. Given the effects of tax-free compounding, the payoff can be handsome, but the employee takes the risk, not the company. The number of employees whose primary pension coverage was in defined contribution plans more than doubled from 1980 to 1987, to 13.4 million, reports the

Senator David Durenberger worries about burdening future taxpayers. He founded Americans for Generational Equity (AGE).

Labor Department. Meanwhile the number primarily covered by a defined benefit plan dropped 4%, to 28.5 million.

Cost-conscious employers can save big by making the switch. If it's a tough year, companies usually have no obligation to pay into a profit-sharing plan. In 401(k) plans, not all employees choose to participate—incredible stupidity on their part—and it typically costs a company only about 1% to 2% of its total payroll costs to match employee contributions. Compare that with the 7% of payroll that on average it costs to fund a defined benefit plan. Last fall Merrill Lynch terminated its defined benefit plan in favor of a defined contribution scheme and booked a $220 million after-tax gain as a result.

IF YOU ARE at all tempted to live for today, defined contribution plans can get you in big trouble when you change jobs. Since the assets belong to you, you can usually take your account with you as a lump sum. Although there's generally a 10% tax penalty for withdrawing the money and spending it, most people do. The Employee Benefit Research Institute, a nonprofit research organization, found that in 1983, astonishingly, only about 30% of lump-sum payouts were saved in any form, including as an investment in a home.

If you don't spend your entire career with one company, even a defined benefit pension may not be much help. Such plans usually aim at replacing about 40% of preretirement income, but only lifers wind up with that. The Congressional Research Service calculates that working for five employers over the course of a 42-year career would leave you with half the pension of your counterpart who never moved.

Boomers change jobs more often than their parents did. Take Bill Brooksbank, 38, president of a small Houston consulting firm, who worked earlier for Tenneco, Exxon, and a subsidiary of Merck. His father spent his entire career with Baltimore Gas & Electric and retired comfortably at 59. But so far young Brooksbank's only vested pension is $4,800 a year at 65, from Tenneco. If inflation is a mere 4%, that will give him the equivalent of only about $1,700 a year in today's purchasing power. "Corporate America can't be relied on for retirement money," says this Harvard MBA. "You have to be self-reliant." Chastened, he's currently saving 17% of his pay.

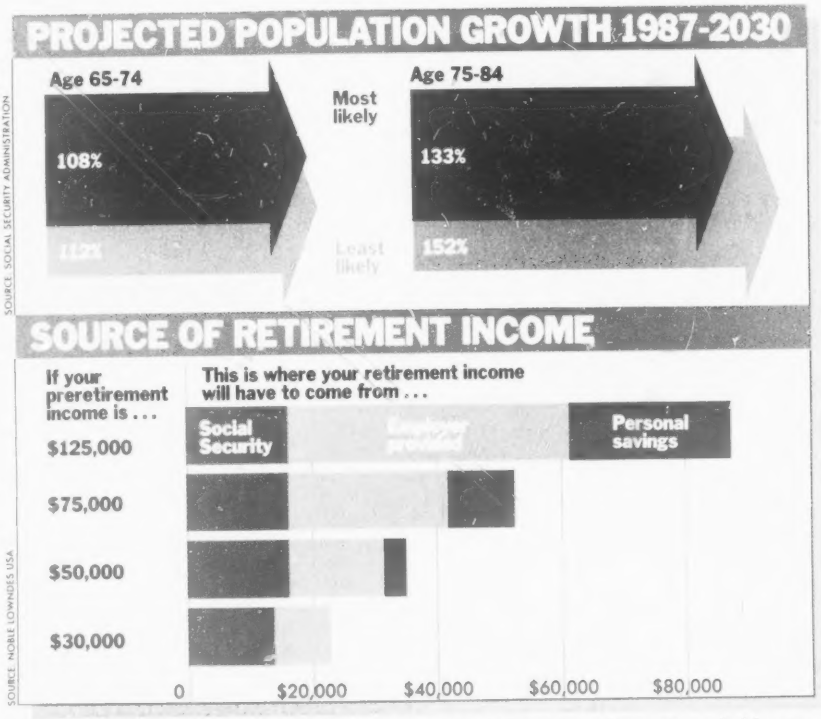
Better not count on Social Security's so-called surpluses to make up for shortfalls in your corporate pension. Congress has been reducing future benefits. Most young Americans probably didn't pay much attention in 1983 when Congress raised to 67 the age at which workers become eligible for the maximum Social Security benefit, effective 2027. But who will have to wait? Today's 29-year-olds. Congress also imposed a tax on 50% of Social Security payouts to retirees with incomes of $32,000 and above for a couple, $25,000 for a single person. It was the first time any Social Security benefits got hit by taxes, but it probably won't be the last.

At the same time, Social Security is taking a progressively larger bite out of income that might otherwise go to, say, savings. The maximum Social Security tax in 1959 was $120. In 1989 it will be $3,605 for individuals earning $48,000 or more.

In part because of the higher taxes, the system is in excellent shape—today. In 1989 taxes will generate $58 billion more than the cost of providing benefits to retirees. But that $58 billion isn't being squirreled away somewhere; it's being spent by the government wherever it chooses. It also masks the fact that the federal deficit would be just that much higher if the money weren't available. In effect, other parts of the federal government are writing IOUs to the Social Security trust fund. The surpluses now built into the system are expected to eventually generate as much as $12 trillion by 2030 to provide for the enormous hit of baby-boom retirements.

WHAT IF it's a $12 trillion IOU instead? Who will pay? Unless the boomers' benefits in retirement are taxed heavily, or the government invests the money in productive assets, the burden will fall mostly on hapless baby-busters. If benefits stay roughly where they are now, workers in 2040 could find Social Security taking as much as 40% of their paychecks.

Minnesota Republican Senator David Durenberger worries so much about burdening future taxpayers that he has founded a group called Americans for Generational Equity (AGE). He thinks beneficiaries of future government social insurance programs should pay for more of their benefits



The elderly population will swell as the baby boom jogs into old age. If your household earns more today, you need to save more to maintain your standard of living. The calculations assume you have a typical pension and will need 70% of your preretirement income.

Like Dan Young, more will work at 72.

and points approvingly to the income-tested co-payments for Medicare catastrophic illness coverage Congress put in place last year. Durenberger argues that today's system encourages people not to save, and he wants to change that. Reducing taxes on interest from savings would be a good way to start. Says the Senator: "It's all about signals. When people find they're being rewarded rather than penalized for saving, they'll realize they can't rely on others to take care of their retirement."

PERSUADING individuals to start saving won't be easy in this age of Acuras, aquavit, and acquisitiveness. While the personal savings rate in the U.S. has improved a bit of late, at 5.2% of disposable income it remains among the lowest in the industrialized world. Susann Felton, 40, a purchasing manager for Potomac Electric Power in Washington, and her husband, who writes computer software, get flak from their friends for putting away 20% of their income: "People look at us like we're crazy because we save for retirement. They say, 'You ought to be taking a trip to the Caribbean or something.' "

The friends taking the trips will probably wind up working later in life than the Feltons. They may not mind that. Merrill Lynch's survey of people 45 to 64 found that 52% expect to work at least part time in retirement. Robin Thomas, 38, a marketing manager for a cable television company in New York City, speaks for many baby-boomers when she says, "I never see myself as being idle. I'll probably work into my 70s. I don't look forward to retirement."

Quite a few economists foresee a worker shortage so severe that at retirement age boomers will be able to cut a deal to continue working on their own terms. "We won't retire," says Wyatt's Steve Vernon, "we'll retread." Companies are already hustling to recruit older workers. The Days Inns motel chain started hiring seniors for its Atlanta reservations center in 1985 and now employs more than 65 of them. The oldest is 77. Dan Young, 72, began working in the center three years ago. "I wanted to be wanted," he says. "I don't work here for the money but because working keeps me young."

Working after 65 may sound acceptable from 25 years away, but what if your health fails? "Everybody needs a retirement plan even if they don't plan to retire," says Robert C. Atchley, director of the Scripps Gerontology Center at Miami University in Ohio.

The rapidly rising cost of health care has all the experts worried. The Brookings Institution recently estimated that, with inflation figured in, by 2020 the cost of a year in a nursing home would be about $158,000. Corporations are already finding the cost of their medical plans rising 20% to 30% a year. A proposed new accounting rule would require companies to recognize liabilities for future retiree medical care as they accrue, a change that could well lead to cuts in benefits. Wyatt Co. found in a 1988 study that 39% of big corporations either have already reduced or eliminated medical benefits for future retirees, or plan to.

Staying healthy is your best single investment for retirement. While boomers stand a good chance of living into their 90s, little headway is evident in the fight to prevent diseases such as Alzheimer's or arthritis, whose incidence is higher after 85. Active workers today have a 1-in-5 chance of eventually needing long-term care, says Atchley. Yet many boomers still shirk planning with the glib and fatalistic logic of a 30-year-old New York woman who says, "I don't believe the statistics. With all the environmental problems I have a hard time believing I'll live longer. I don't want to live until 90 anyway if I have to live in a nursing home." Her attitude may change, though, as she gets closer to that age.

SOUND THINKERS who do want to start planning should begin by taking a hard look at their assets now, at what their employers will provide, and at their investment alternatives (see table). If the numbers fall short of the goal, you have several options: Save more, try to increase the return on savings you already have, delay retirement, or decide to accept a lower postretirement standard of living. Don't forget that inflation will probably continue after you retire. You may plan to take your pot of $1 million and put it into a 7% tax-free bond, to yield a healthy-sounding $70,000 of income in your first year of retirement. But if inflation runs along at a modest 4% annual rate, in ten years that $70,000 will only buy about $47,000 worth of food, housing, and medical care.

Thirty-year-olds can probably finance a comfortable retirement by saving at least 10% of income from now on. If you wait

THE LONG-TERM PAYOFFS ON SAVINGS

INVESTMENT	COMPOUND TOTAL ANNUAL RETURN* 30 YEARS	20 YEARS	10 YEARS
S&P 500	9.70%	9.54%	16.33%
20-year government bond	5.76%	7.82%	10.61%
20-year corporate bond	6.31%	8.30%	10.86%
30-day Treasury bill	6.16%	7.50%	9.09%
Inflation	4.87%	6.30%	5.93%

*For periods ending 12/31/88.

SOURCE: IBBOTSON ASSOCIATES, CHICAGO

until you're past 40 to get started, put away 15% to 20%. If you're self-employed or don't have a pension, you may have to raise the amount to—brace yourself—35% to 40%. If your employer offers a 401(k) plan, you've got a terrific way to store up dollars tax-free. Contribute the maximum. Find out whether your company provides a generous pension. "If they don't," advises Wyatt's Vernon, "move to one that does." If you're not eligible for a pension, open an IRA.

And get ready to practice what just might become the fashion among boomers in the 1990s: postponing consumption. Says Emily Andrews, 47, a pension expert at EBRI who puts away about 15% of her income and drives a 1984 Toyota Corolla: "People laugh at my car. But I want to be a rich old lady. It's a lot easier to be poor when you're young than when you're in your 70s." To join her on the beach or the golf course in 2025, start planning—and saving—now.

RETIREMENT TAKES MORE THAN MONEY

Financial security is just the underpinning for a pleasant retirement. If you're going to prepare yourself psychologically, better start now rather than in 2015. A few suggestions:

While you may not think you have time, try to develop interests outside your job. Says the Scripps Center's Robert Atchley, one of the country's leading gerontologists: "A full human life is one that explores its potential in not just one but a number of realms—artistic, family, spiritual, and work. People who have developed balance among those dimensions tend to be more at peace with themselves late in life. They don't have a sense of opportunity missed."

Start doing volunteer work. "I've never known a successfully retired older person who wasn't involved in doing something for others," says Bill Fitch, 75, the senior retirement consultant for the National Council on the Aging. For ten years Fitch has been conducting seminars on retirement, some of them free. Before that he was executive director of the Council. That doesn't mean that he lives like an impoverished social worker. This year he bought himself a bright red Mustang convertible. "I call it the spirit of 76," he says.

Expect to learn new tricks. Retirees are growing more adventurous on this front, and educational programs are sprouting up to accommodate them. Elderhostel, a fast-growing Boston-based group, will this year enroll 1[illegible]0 students age 60 and up in classes ranging from "Prehistoric Art of Southwest New Mexico" to "How to Ring English Handbells." Colleges and cultural institutions around the world host the week-long classes, even when their regular programs are in session. The average fee is only $240, including room and board. When that eminent theorist of retirement, Bob Dylan, conjoined "the old folks' home and the college," he was predicting the future.

More women than men will live to enjoy it; plan your dance card accordingly. While one-third of boomers will likely live to 85, there is no sign that the difference in longevity between men and women will disappear. Women will account for 60% of aged boomers, says Cheryl Russell, editor-in-chief of *American Demographics* magazine.

Don't expect your children to take care of you. As many as 20% of baby-boomers will remain childless. If you have been working so hard you haven't had time to get close to the little nippers, don't think you'll do much better on this front later on. Future retirees will have to pay for many services traditionally provided free by family members, predicts Mathew Greenwald, a Washington, D.C., demographer and market researcher.

Look at it as your last chance to live the Aquarian life. Russell, 36, predicts that some baby-boom retirees without kin will form communes. "It won't be like the Sixties," she says, "but more of a grouping together, like a nuclear family." She expects her generation to plunge into social activism again once it's freed from full-time work. As their thoughts turn to their approaching demise, boomers may also reacquaint themselves with Far Eastern philosophies popular in the 1960s, or even with the religion of their childhood. Life comes full circle, even if you can't stay forever young.

Boomers may retire to communes like this one in Massachusetts.

WHERE GLOBAL GROWTH IS GOING

STRIKE UP THE BAND for the world's vibrant capitalist economies. The rain that keeps threatening the parade can't stop the global expansion from marching into a seventh year of growth, the longest since World War II. Forecasters look for more gains next year, though the pace will slow. On the following pages are snapshots of the expansion and where it is headed, based on data of the economic forecasting firm Data Resources.

Led by a powerful surge in investment, the boom has raised output and lowered unemployment around the world. Consumers are stepping high, too; even the industrious Japanese are learning to spend. European investment, the strongest since the 1960s, partly reflects anticipation of 1992, when the European Community creates a single market. Within the EC growth lags only in Britain.

Where else might rain fall? Inflation is creeping up. So far it has been manageable. Says economist Bill Martin of UBS Philips & Drew in London: "In many ways the rise was a fairly painless penalty to pay for the very vigorous rates of growth." But capacity is under strain around the world, and wage pressures are mounting, especially in the U.S. and Asia's Little Dragons. Inflation is already turning nasty in Hong Kong and South Korea. Even Japan is beginning to feel a touch. In many Latin American countries it has become epidemic—it's probably worst in Peru, at more than 5,000% a year. Inflation has joined debt that can't be repaid and declining GDP per capita among the continent's woes.

Trade friction reached a flash point. The U.S. labeled Japan, India, and Brazil unfair traders, and GATT complained that the U.S. was being a bully. Market forces swamped—at least for a while—efforts by finance ministers to keep the dollar from rising. As a result, the improvement in the U.S. current account deficit has slowed. But the dollar remains far below its 1985 peak. American exports continue to grow faster than imports, and the trade deficit should keep heading down for the rest of the year. While some critics worry that the world is shaping up into trade blocs that will stick mainly to themselves—the EC, North America, the Pacific Rim—global plans being made by managers everywhere tell a more optimistic story.

– Edward C. Baig

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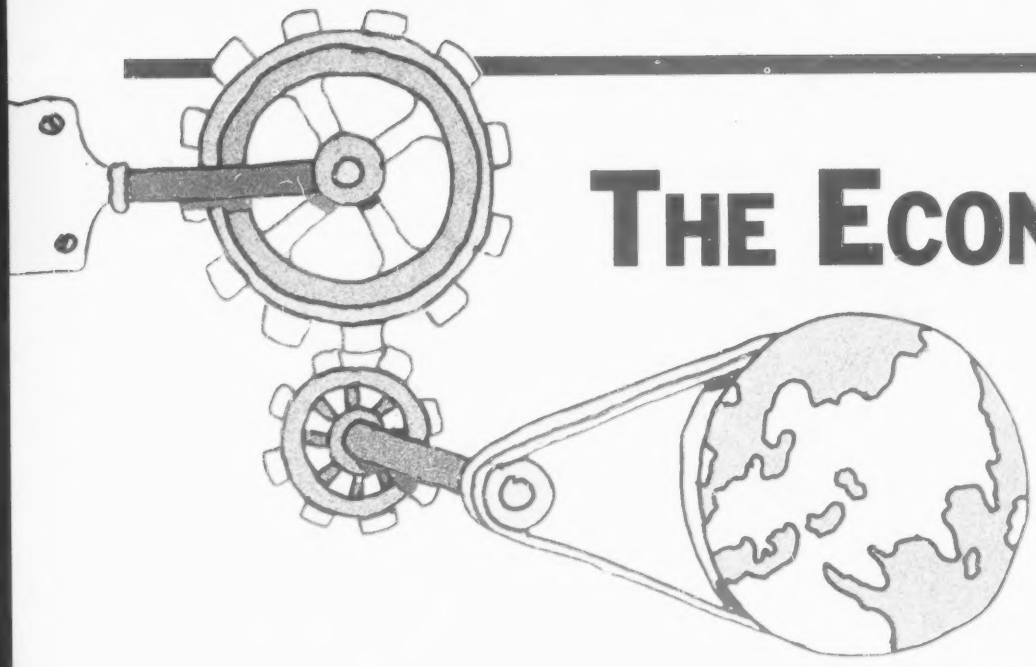
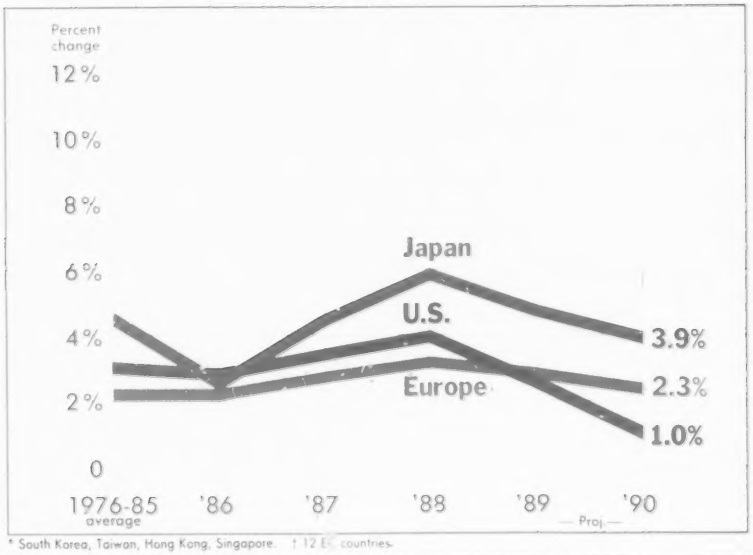
ILLUSTRATIONS BY SEYMOUR CHWAST

THE ECONOMIES

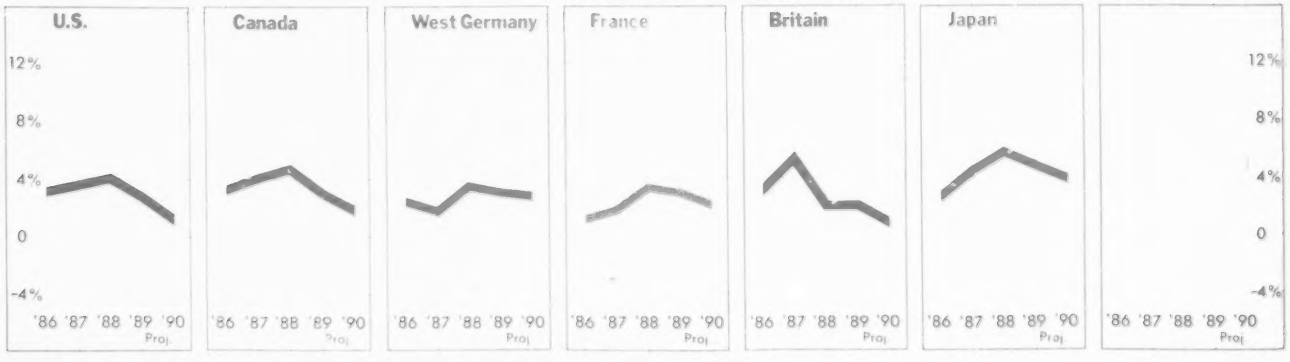


REAL GNP GROWTH

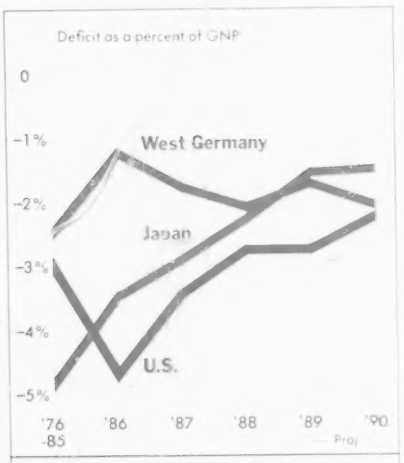
The global expansion is starting to ease. As a group, Asia's Little Dragons—Hong Kong, Singapore, South Korea, and Taiwan—remain the world's hotshots, but their growth will slow dramatically. The Korean rate will be shaved by more than half. Britain, which partied in 1987, appears headed for an economic hangover next year. Among developed and fast-developing countries, only Indonesia, which has attracted substantial new foreign investment, will boost its rate of expansion in both 1989 and 1990.



* South Korea, Taiwan, Hong Kong, Singapore. † 12 EC countries.



FIGURES SUPPLIED BY DATA RESOURCES



GOVERNMENT BUDGETS

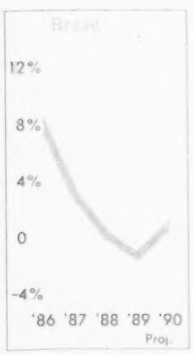
Back from the brink: The U.S. budget deficit keeps shrinking, both as a percent of GNP and in absolute terms. West Germany could turn expansive.

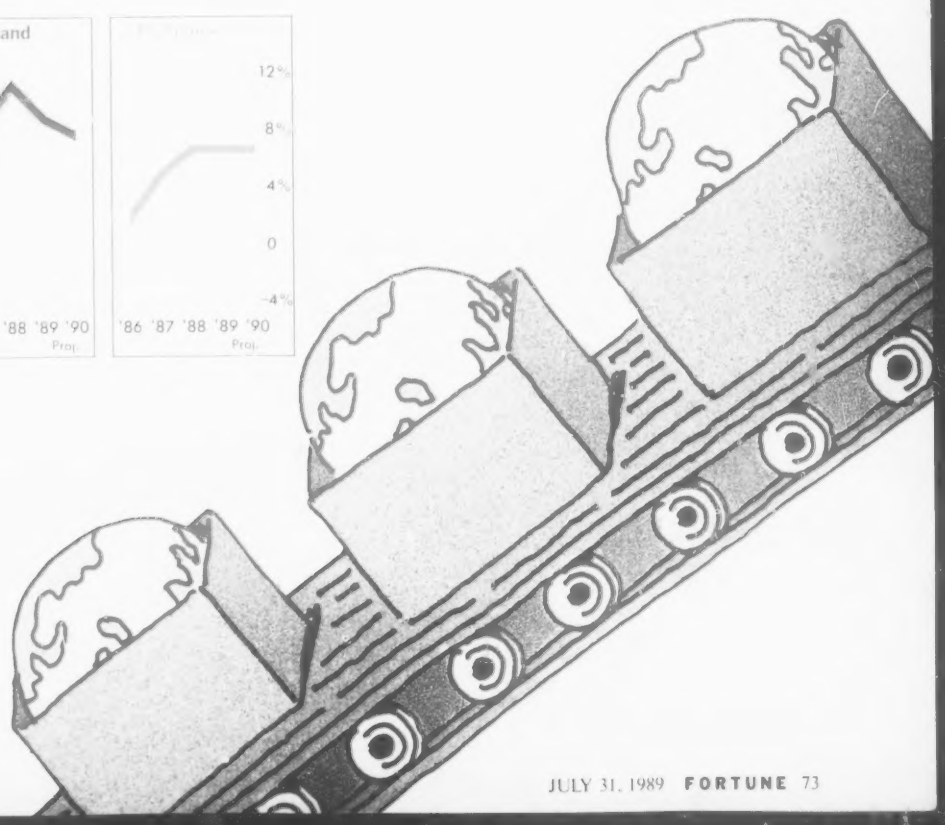
INFLATION

The expansion is still strong enough to generate inflationary steam. Even the West Germans and the Japanese are beginning to feel the heat.

UNEMPLOYMENT

U.S. unemployment will inch up slightly next year but will probably not exceed 6%. West Germany's rate will hover around its seven-year low.





THE TOP 25 COUNTRIES

	1988 GDP in billions of U.S. dollars	POPULATION in millions	REAL GDP GROWTH avg. annual % change 1984-88
United States*	$4,864.3	246.5	3.4%
Japan*	$2,858.9	122.6	4.4%
West Germany*	$1,208.3	60.6	2.4%
France	$945.9	55.9	2.4%
Italy	$828.8	57.4	3.0%
Britain	$812.1	56.9	3.5%
Canada	$486.5	25.9	4.1%
Brazil	$384.6	144.5	4.8%
China	$370.6	1,085.3	10.6%
Spain	$342.3	39.0	3.8%
Iran	$338.4	52.9	−0.5%
India	$283.8	801.5	6.2%
Australia	$246.0	16.6	3.9%
Netherlands*	$230.2	14.7	2.2%
Switzerland	$184.8	6.6	3.0%
Mexico	$181.2	84.0	0.1%
Sweden	$178.5	8.4	2.0%
South Korea	$164.6	42.7	10.0%
Belgium*	$152.0	9.9	2.2%
Austria	$126.6	7.6	2.4%
Taiwan	$116.2	19.9	8.5%
Denmark	$107.8	5.1	1.7%
Finland	$104.2	4.9	3.5%
Norway	$88.1	4.2	2.9%
Saudi Arabia	$74.5	12.9	−1.6%

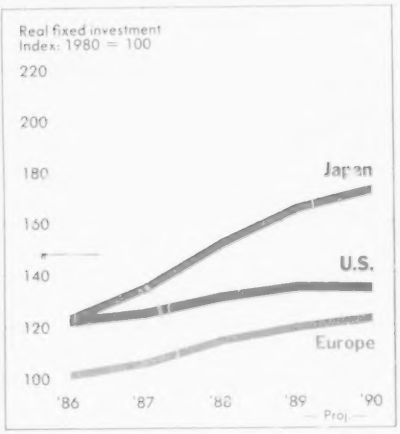
The U.S. still dwarfs Japan as the biggest economy in the world. The list excludes the Soviet Union and its allies because data are unreliable. China and India, the largest countries by population, are among the lowest in gross domestic product per capita.

*GNP

SURGING INVESTMENT

Investment fever is gripping the global village. Capital spending has been brisk around the world, especially among the Little Dragons and in Japan, Indonesia, and India. Led by electronics and machinery manufacturers, Japanese companies boosted plant and equipment purchases by 16% in 1988, the largest rate of increase since the end of World War II. Japanese investment is also helping to speed growth in such Southeast Asian countries as Thailand, Indonesia, and Malaysia.

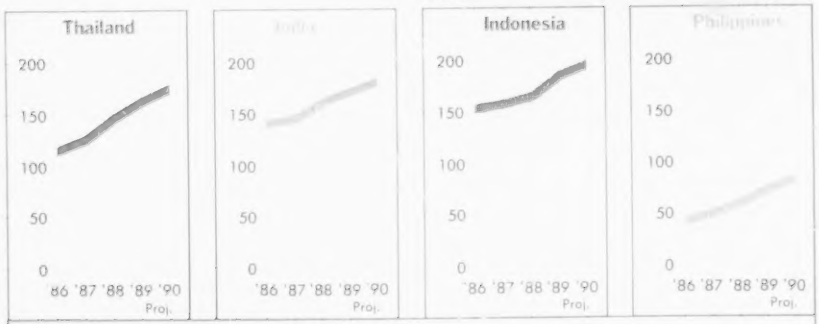
Money is pouring into developed countries, too, especially the U.S. Attracted by safety and stability, foreigners raised their direct investment in American businesses and property by $58 billion last year, bringing the total to $329 billion. That puts it ahead of U.S. direct investment abroad.



FIXED INVESTMENT AS A PERCENT OF GDP
Five-year average

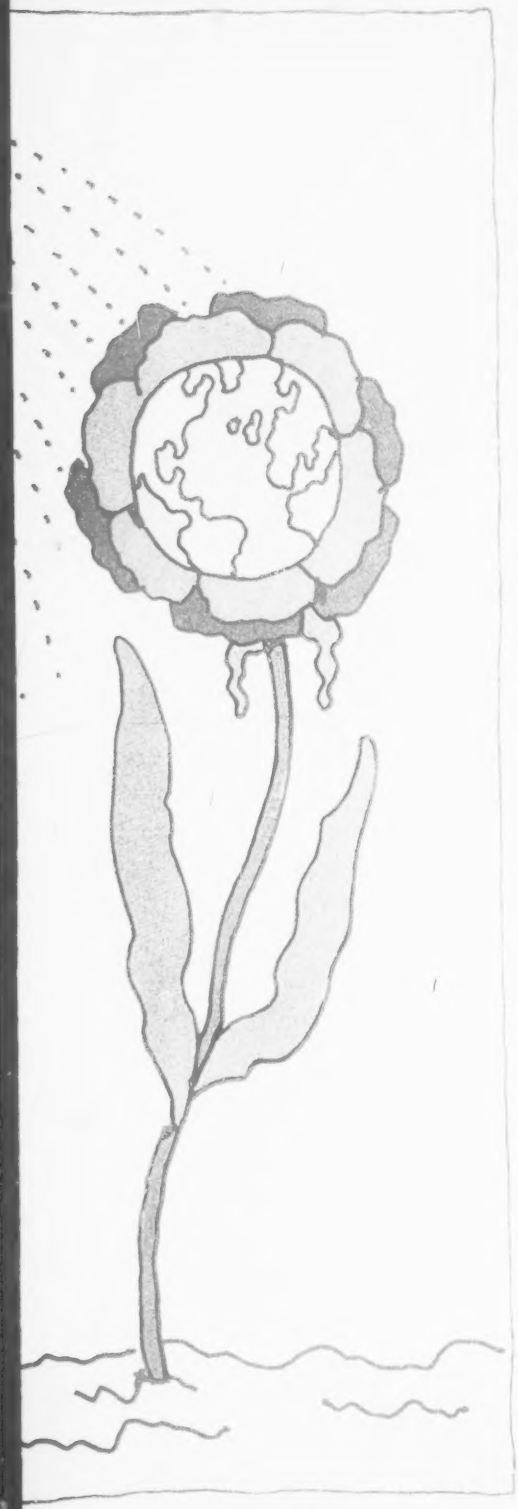
Japan*	29.9%
Indonesia	26.4%
Thailand	24.9%
India	21.4%
Europe	19.7%
Philippines	16.6%
United States*	14.8%

*GNP.



CAPITAL INVESTMENT

Rebounding from a period of low investment during the early 1980s, businesses are replacing plant and equipment and starting up real estate ventures with panache. Annual investment is up everywhere, but the biggest increases are in Asia.



$327 BILLION
Total U.S. investment abroad

COUNTRIES WHERE THE U.S. INVESTED MOST IN 1988

Canada	$61 billion
Britain	$48 billion
West Germany	$22 billion

$329 BILLION
Total foreign investment in the U.S.

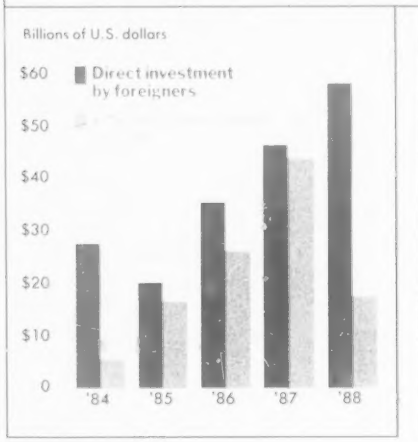
COUNTRIES WITH THE BIGGEST INVESTMENT IN THE U.S. IN 1988

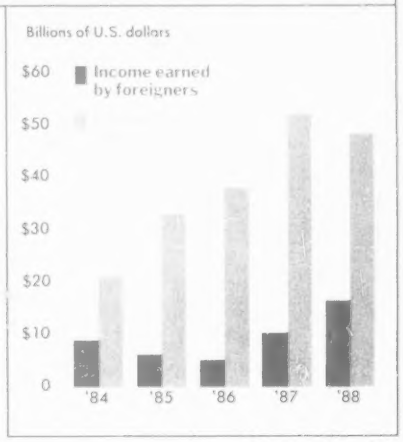
Britain	$102 billion
Japan	$53 billion
Canada	$27 billion
West Germany	$24 billion

SOURCE: COMMERCE DEPARTMENT

DIRECT INVESTMENT

Direct foreign investment in the U.S. outpaced American investment abroad by $41 billion in 1988; the year before, the difference was just $2.7 billion. But Americans still collect nearly three times the income from their properties.

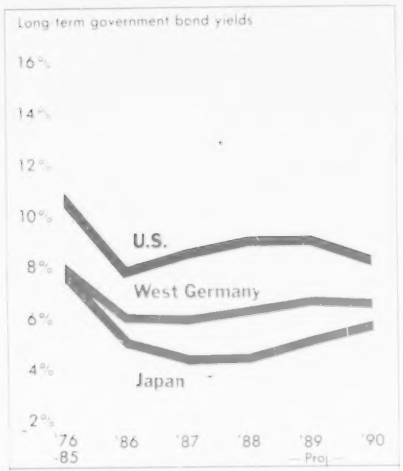




which totals $327 billion. The flow of American investment overseas slipped by $27 billion last year, even though the number of new foreign projects rose 18%, according to data compiled by the Conference Board. Western Europe attracted just over half these new ventures as U.S. companies sought to achieve solid positions in the Common Market before 1992.

Governments everywhere are trying to woo investors. Mexico now allows foreigners to own 100% of some businesses. Korea has been talking about loosening restrictions on capital from abroad. Seoul will no longer insist that foreign manufacturers export a significant portion of the goods they produce in Korea. Even the Soviet Union is setting up islands of capitalism—economic zones where Westerners can own plants in Mother Russia.

Financial markets reflect the global growth surge (page 84). Some 20 months after the Wall Street crash of October 1987 sent shock waves around the world, most foreign stock markets are performing vigorously. China's violent swing to the right, along with the regime's continuing campaign against reformers, knocked down share prices in Hong Kong but barely slowed the explosive growth of newly emerging markets in Taiwan and South Korea. The only major exchange below its level of a year ago is Sydney's, mainly because of rising interest rates.



INTEREST RATES

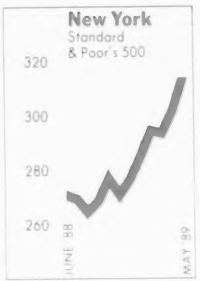
Interest rates are up, though well below historic peaks. Long-term rates have risen less than short-term rates.

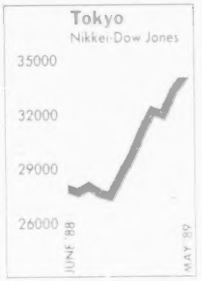
*Bank lending rate

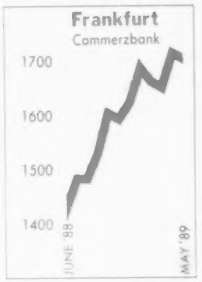
STOCK MARKETS

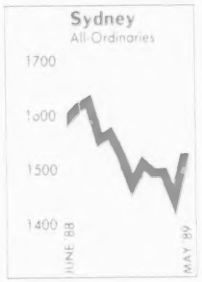
Most of the world's busiest stock exchanges turned in performances last year that made Black Monday a distant memory. On all the major markets save Sydney, prices pretty much moved up in unison. Brazil's market grew fastest, due mainly to inflation, but tumbled in June when a big investor defaulted.

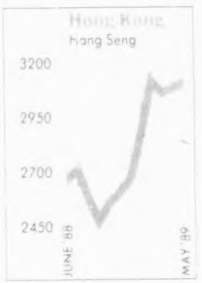
DEVELOPED MARKETS	MARKET CAPITALIZATION April 1989 in billions	ANNUAL GROWTH 1983-88
Japan	$3783.9	47.6%
United States	$2709.0	8.0%
Britain	$771.3	27.9%
West Germany	$241.0	25.0%
Australia	$125.9	25.2%
Hong Kong	$86.8	34.2%
EMERGING MARKETS		
Taiwan	$175.3	73.7%
Brazil	$62.1	16.3
Malaysia	$28.8	0.5%
Mexico	$28.4	51.1%

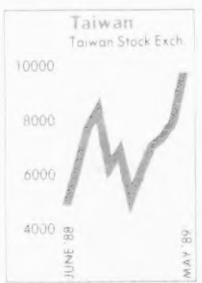


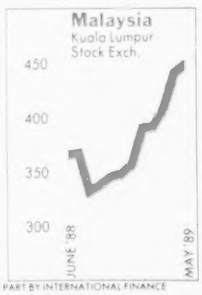












STOCK MARKET INFORMATION SUPPLIED IN PART BY INTERNATIONAL FINANCE CORP. AND MORGAN STANLEY CAPITAL INTERNATIONAL PERSPECTIVE

LATIN AMERICA

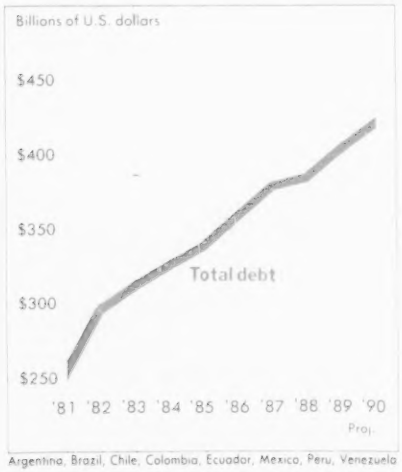
The price of economic mismanagement haunts the continent. In many countries GDP per capita and investment are below what they were when the decade started. The economies of Argentina and Peru have collapsed, and Brazil is teetering dangerously on the brink. Inflation in all three countries is at Weimar Republic levels. Total Latin debt has accelerated past $400 billion. Only a fraction is ever likely to be repaid: $1 of Latin debt is worth mere pocket change in lightly traded secondary markets. The debt-reduction plan put forward earlier this year by U.S. Treasury Secretary Nicholas Brady provides a framework for banks and debtor nations to settle realistically, but it's off to a shaky start. Signs of hope? President Carlos Salinas de Gortari is Mexico's most vigorous economic and political reformer yet.

	VALUE OF $1 OF DEBT IN SECONDARY MARKETS May 1989
Argentina	12.5¢
Brazil	32.0¢
Chile	60.0¢
Mexico	40.0¢
Peru	4.0¢
Venezuela	37.0¢

SOURCE: SWAPS—THE INTRADOS GROUP

	GDP PER CAPITA 1989 as a % of 1980
Argentina	42.9
Brazil	117.7
Chile	71.9
Mexico	83.5
Peru	88.2
Venezuela	71.9

	CAPITAL INVESTMENT 1989 as a % of 1980
Argentina	26.5
Brazil	103.4
Chile	88.3
Mexico	73.4
Peru	78.2
Venezuela	64.4



Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru, Venezuela

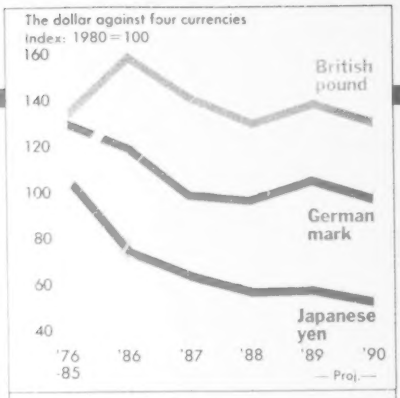
SHIFTING TRADE PATTERNS

Worldwide trading partners are squabbling. That's hardly new, but the mood in America has turned particularly truculent. In May the U.S. designated Japan, India, and Brazil as unfair traders under the so-called Super 301 provision of the 1988 Trade Act. Despite the bickering, world trade expanded by about 9% in 1988—the strongest showing in the 1980s.

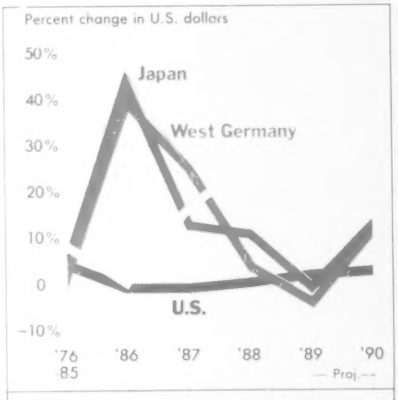
America, the world's biggest importer, sold more goods abroad than the year before, and exports rose faster than imports. A weaker dollar gets some of the credit, but U.S. industry has also made itself more competitive. One sign: American unit labor costs are expected to increase more slowly than those of West Germany and Japan, even without help from the relatively weak dollar.

The U.S. export surge lopped a nice chunk off America's still enormous trade deficit, now about $120 billion on an annualized basis. In this investment-charged environment, FORTUNE expects foreigners to continue craving U.S. products, especially capital equipment.

Exporters in Japan and Germany have been losing market share to the U.S. and to Asia's Little Dragons. America reduced its current accounts deficit by about $17 billion during 1988, although progress in the first half of this year was tempered by the dollar's rise.

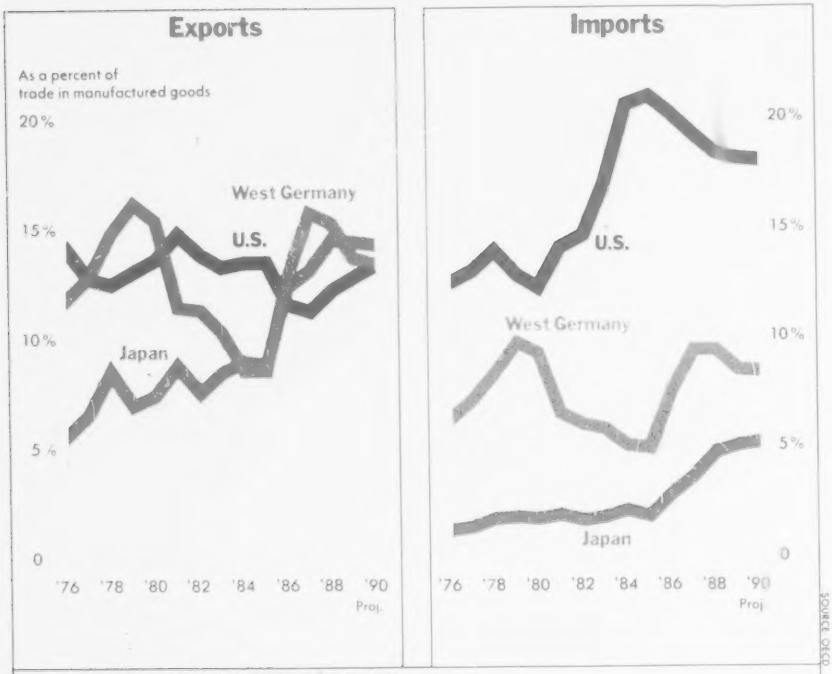


THE DOLLAR
The dollar's vigorous spring rally overshadowed the fundamentals. It is still far below its 1985 peak.



UNIT LABOR COSTS
In 1990, U.S. labor costs are expected to rise at a rate less than Japan's and West Germany's.

CURRENT ACCOUNTS
Even strong U.S. exports will only gradually whittle away America's current accounts deficit.

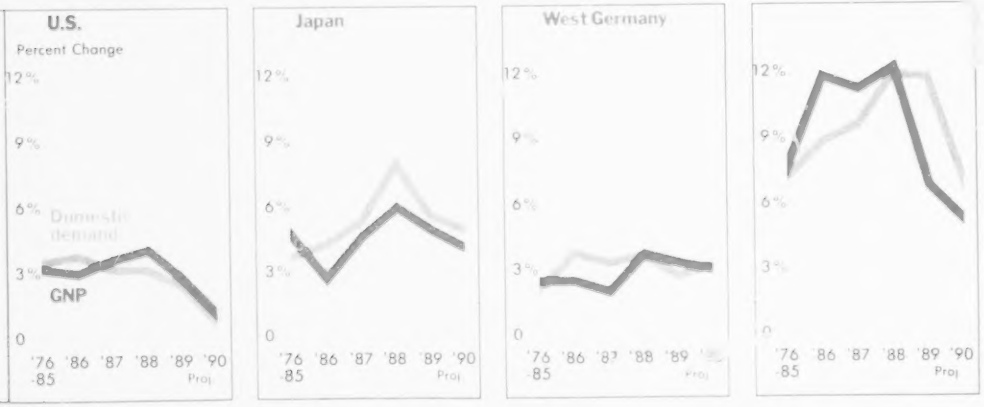


SHARES OF WORLD TRADE

The U.S. accounted for roughly a third of the rapid increase in trade last year (measured in current dollars). America's share of exports rose by a full percentage point, while imports slipped a point. The Little Dragons keep playing bigger roles.

TOTAL OUTPUT VS. DOMESTIC DEMAND

Domestic demand in Japan grew a full two percentage points faster than GNP in 1988, and the Japanese scooped up imports. In the U.S., strong exports are keeping GNP growing ahead of demand.



		Bangkok	Frankfurt	Hong Kong	London	New York	Paris	Sao Paulo	Seoul	Tokyo
COSTS	Apartment rent 3 rooms, per month	$950	$496	$2,136	$1,244	$1,680	$966	$1,365	$1,694	$6,123
	Color TV	$636	$550	$356	$820	$577	$1,079	$528	$859	$1,427
	Business suit	$212	$275	$214	$303	$352	$260	$488	$240	$536
	One dozen eggs	$.79	$1.99	$1.04	$2.32	$1.15	$2.24	$.83	$1.05	$1.43
	Gasoline 1 liter	$.36	$.54	$.60	$.69	$.36	$.80	$.70	$.91	$1.06
	Hairdresser Ladies	$1.90	$18.20	$8.60	$20.80	$32.90	$23.20	$18.70	$14.00	$29.80
	Taxi fare 5 km	$1.83	$7.71	$2.85	$10.44	$8.12	$4.91	$4.70	$1.82	$9.11
EARNINGS	Bus driver After-tax earnings	$2,971	$15,658	$11,119	$15,764	$20,959	$15,967	$4,207	$9,404	$25,049
	Hours worked	2,731	1,915	3,018	1,841	1,916	1,841	2,346	3,110	2,175
	Department manager After-tax earnings	$10,769	$46,773	$30,878	$26,127	$37,303	$20,885	$5,871	$17,663	$52,741
	Hours worked	2,428	1,909	2,486	1,792	1,995	1,814	2,149	2,312	2,114

SOURCE: UNION BANK OF SWITZERLAND

A SNAPSHOT OF LIVING STANDARDS

What's the most expensive city in the world? Probably Tokyo, where the monthly rent for a medium-priced unfurnished three-room apartment is greater than the *annual* pay for a bus driver in São Paulo. Even so, it will cost more to get your hair done in New York and to ride a taxi in London. In general, Asians work longer hours than Europeans or Americans do for no relative increase in pay. The prices in this comparison were based on exchange rates on March 23, 1989. □

Weekend warriors—like these at Phoenix's Luke Air Force base—cost $15,000 each a year. An experienced Air Force pilot's pay: $50,000.

HOW BIG A MILITARY DOES THE U.S. NEED?

With the cold war cooling, the Pentagon budget could be cut by a third without weakening defense. Think what America could do with the extra $100 billion a year. ■ *by Lee Smith*

UNTIL RECENTLY, following conventional arms talks between the U.S. and the Soviet Union had all the excitement of watching rocks in no man's land. Nothing happens. Now the exchanges are fast and fascinating. General Secretary Gorbachev offers to withdraw thousands of tanks and troops from Europe. President Bush counters with a proposal to limit the size of the superpower armies.

For 30 years the tension in central Europe has largely determined the contours of America's armed forces. If the superpowers do agree to pull back, how should the U.S. shape its military? How big an Army, Navy, and Air Force will the U.S. need a decade from now? Or how small?

Still deep in negotiations with the Soviets, American officials such as Defense Secretary Richard Cheney don't want to talk about goals for the year 2000. But experts outside the Defense Department—former Pentagon officials and retired generals among them—can stand on the high ground apart from the smoke and dirt. What they see is a chance for victory all around, an opportunity to maintain international security and at the same time strengthen the American economy. The U.S. military budget, about $300 billion this year, could be reduced by perhaps a third by the year 2000.

An extra $100 billion a year could settle a lot of America's unpaid bills. If that money were available immediately, for example, it could almost liquidate the budget deficit, or go a long way toward settling the S&L's debts, or pay to make life better for Americans in myriad ways. But the most important question is whether pulling that much out of the defense budget would seri-

PHOTOGRAPH BY ALAN D. LEVENSON

ously weaken the ability of the U.S. to protect itself and its friends.

Many authorities insist it will not, former Defense Secretary Robert McNamara among them. "Security is the top priority of the nation, and we can afford whatever we need," he says. "But the fact is that we are spending more than we have to." McNamara believes that, with continued progress in East-West arms talks, the budget could be sliced by $150 billion in six to eight years. That's somewhat deeper and faster than other experts think is feasible: A $100 billion cut by 2000 is ambitious enough.

If $100 billion dollars were yanked out of the U.S. economy suddenly, it could bring on a recession. A scaled decrease in military spending over a decade is more palatable, both politically and economically. Says economist Murray Weidenbaum, who specializes in defense issues: "When you pull down your guard with the Soviets, you do it gradually." FORTUNE economists think the economy could handle a $30-billion-a-year decrease in federal outlays without a convulsion, so the average annual decline of $10 billion over ten years that this article proposes should not play havoc. Still, says Weidenbaum, regions that depend heavily on defense contracts, such as Dallas–Fort Worth, Los Angeles, and St. Louis, would almost certainly go though painful transitions.

A one-third reduction—to a spending limit of $200 billion a year in 1989 dollars—might seem too much of a diet for the muscle-bound military to undertake. But in most of the past 40 years, except during the Korean and Vietnam wars, the Defense Department has not spent much more than that. From 1973 to 1980, outlays averaged $206 billion in 1989 dollars.

Granted, no one who cares about security wants to repeat the Seventies. Pay dropped so low that the Pentagon had to fill out its ranks with labor force leftovers. Ships and planes in likely combat zones would have run out of ammunition in a few days of fighting. Ronald Reagan won the 1980 election partly by campaigning against what critics called the "hollow force." Once in office, he used better pay and a renewed spirit of patriotism to attract smarter soldiers; then he got the money from Congress to make them ready to fight.

Edward Luttwak, a scholar at the Center for Strategic and International Studies, argues that it's okay to let readiness slip. Keep a few elite units fit and let the rest take it easy. "The trouble with readiness is that it's like fresh flowers," he says. "It has to be replenished every day." He would rather spend the money on research, seeds that will grow the mighty weapons of the future.

NICE IMAGERY but not convincing. "The trouble with Luttwak's army is that nobody would want to be in it," says Lawrence Korb, an assistant secretary of defense under Reagan and now director of the Center for Public Policy Education at the Brookings Institution. Professional soldiers do not want to sit in the barracks. They want to shoot guns, fly planes.

Another frequently proposed way to shrink military spending is to reform procurement. Clearly the Pentagon should be more frugal and buy wrenches, motors, and other routine supplies off the shelf rather than having them custom made at high prices. It should also stop trying to rush avant-garde technology into production no matter what the cost.

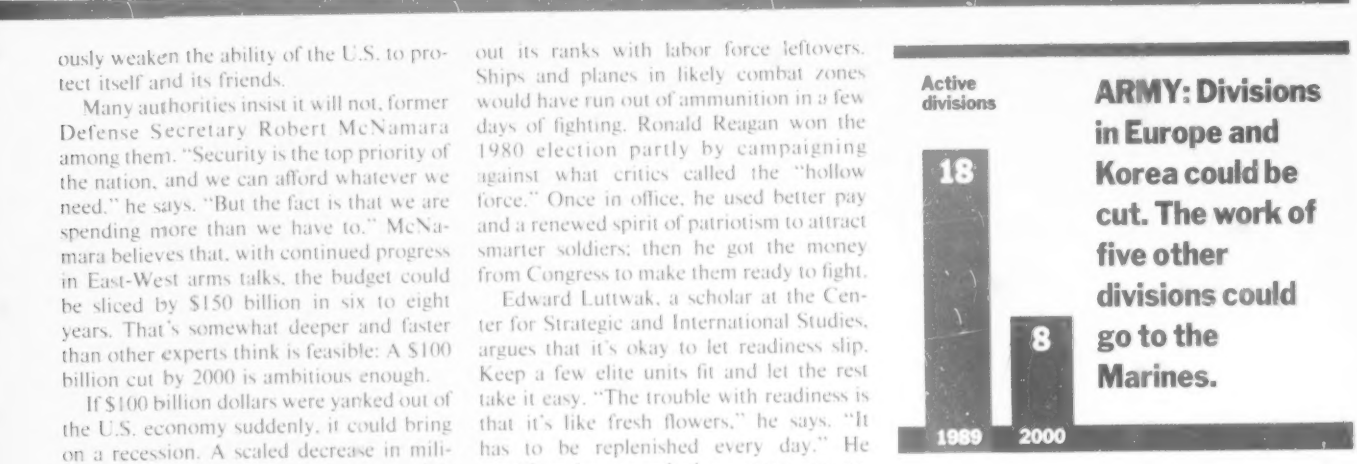
The Stealth, or B-2, bomber designed by Northrop to baffle radar is a prime example of such extravagance. Robert Costello, who recently resigned as assistant secretary of defense for acquisition, says the Stealth program is so poorly managed and costs are so out of control that it ought to be junked. The projected price of 132 planes is $70 billion, or over $500 million each, which makes Republican Senator John McCain of Arizona, a former Navy pilot, wonder if anyone would fly one. He says, "If you have to bail out, you'll spend the rest of your life doing the paperwork."

The plane might be worth that risk and money if it could carry out vital missions that a missile or a B1-B bomber could not. But the special role the Pentagon seems to have in mind for the planes is to chase down Soviet mobile missiles while they are being hauled around the countryside, a task so narrow and chancy it doesn't justify the price.

Though there is no reason for a crash production program, FORTUNE doesn't propose to deep-six the Stealth entirely. In Washington a bad idea is hard to stop once it gets rolling. Besides, killing the plane and a few other luxuries would not go all that far toward pushing the budget down to the $200 billion mark.

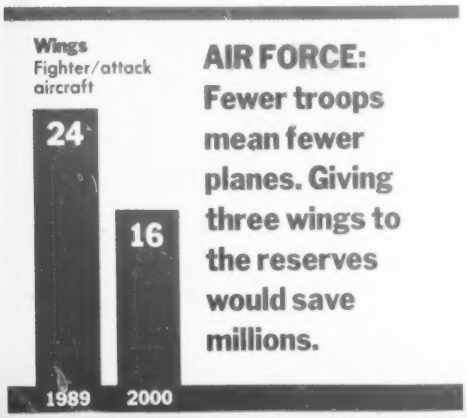
Many analysts have concluded that the surest and safest way to slash the budget is to cut the size of the military. The rough dimensions of the force structure, as Pentagon jargon puts it, are the Army's 18 divi-

REPORTER ASSOCIATE *Jennifer Reese*



ARMY: Divisions in Europe and Korea could be cut. The work of five other divisions could go to the Marines.

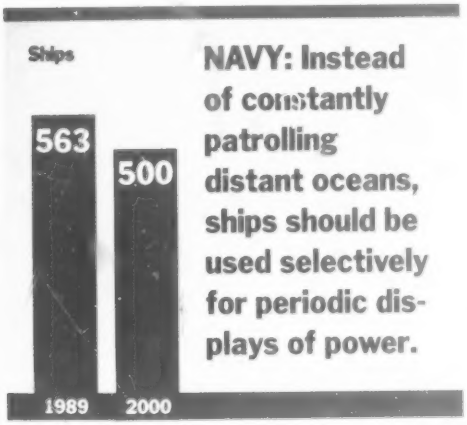
Each GI in Germany costs $50,000.



AIR FORCE: Fewer troops mean fewer planes. Giving three wings to the reserves would save millions.

sions (1989 cost: about $80 billion), the Air Force's 24 wings of tactical fighters (about $85 billion), the Navy's 563 ships (about $95 billion), and the delivery system for 13,000 or so strategic nuclear weapons (about $40 billion).

The cuts would leave the U.S. with a smaller force but one that could be just as effective. While the Pentagon strategy in the Fifties and Sixties was based on being able to fight two and a half wars (in Europe, the Pacific, and one minor conflict), current military thinking seems to focus on fighting a big war in Europe and skirmishes elsewhere. The greatest danger to the military is being too *big* for its task, according to retired general Andrew J. Goodpaster, former Supreme Allied Commander in Europe. Says he: "It would lose the respect and support of the people, and in a democracy you cannot do that."



The military employs 2.1 million men and women in uniform and 1.1 million civilians full time, with jobs as varied as installing air conditioners and auditing Stealth contracts. They are backed up by 1.6 million reservists, most of whom spend a weekend a month plus two weeks a year on duty. Labor costs amount to about $150 billion a year, half the military budget, in pay, training, housing, transportation, health care, children's schooling, and pensions, which alone come to $20 billion a year.

How much of that force structure will the U.S. need a decade from now? The answer depends on how substantially the Soviets reduce their military establishment and what menaces emerge elsewhere in the world.

Gorbachev has offered to eliminate 10,000 tanks from the convoy of 40,000 that are within a few days' roll of West Germany. He would also pull back into the Soviet Union 50,000 of the 600,000 troops in Eastern Europe. Bush's response: Both the U.S. and the U.S.S.R. should reduce their troops in Europe to 275,000 each, or about 30,000 fewer than the current U.S. force. That could save as much as $1.5 billion a year, because the 30,000 slots would be removed from the services and not simply transferred back to posts at home.

Goodpaster thinks both sides could conceivably agree to a gradual decrease to about 150,000 troops each in Europe by the mid-1990s. That would also mean a corresponding decline in tanks, planes, and other heavy metal. If American troops left on a carefully worked out timetable, Europeans, understandably jittery about their security, would probably not feel threatened. No military magic attends the 150,000 figure, but it is about half the present U.S. force.

The overall Army headcount could be reduced by as much as 50%, and the Air Force, Navy, and Marines about 20% each. If the number of civilians supporting the troops were sliced proportionately, the full-time work force could be reduced from 3.2 million to perhaps as low as 2.2 million. Cutting the active-duty work force by about a third ought to eventually reduce personnel costs by the same fraction, $50 billion a year. The Reserves, which account for only 6% of manpower costs, would not be touched.

Amazing though it may seem, a reduction would actually help maintain the quality of the forces. The pool of young men and women from 18 to 21, the prime source of recruits, has been shrinking for several years, and the trend will continue until the mid-1990s. One way to keep the standards high is to lower the number of openings.

Fewer troops need fewer weapons. Leonard Sullivan Jr., a Pentagon official in the Nixon Administration and now a defense consultant, calculates the replacement value of the U.S. arsenal at $2.5 trillion, including 45-year-old battleships as well as newly arrived cruise missiles. The Pentagon will spend $80 billion on procurement in 1989. At that rate the inventory would be replaced every 31 years.

GIVE AWAY A third of the arsenal to allies," says Sullivan, the new hardware along with the old. Though that may sound like demented generosity, it would depart from tradition only in scale. The U.S. sends Israel almost $2 billion in military aid every year, for example, and supplies Afghan guerrillas with Stinger missiles. More than a third of the U.S. arsenal is either in Europe already or tagged for its defense. "The Germans have a lot of reservists and not enough weapons," Sullivan points out. "The Spaniards are asking us to take 72 planes out of Madrid. Instead of having NATO build a base for them in Italy, we should give the planes to the Italian air force." That would seem a relatively painless way to encourage the Europeans to

An aircraft carrier travels with an expensive retinue—as many as 18 support ships.

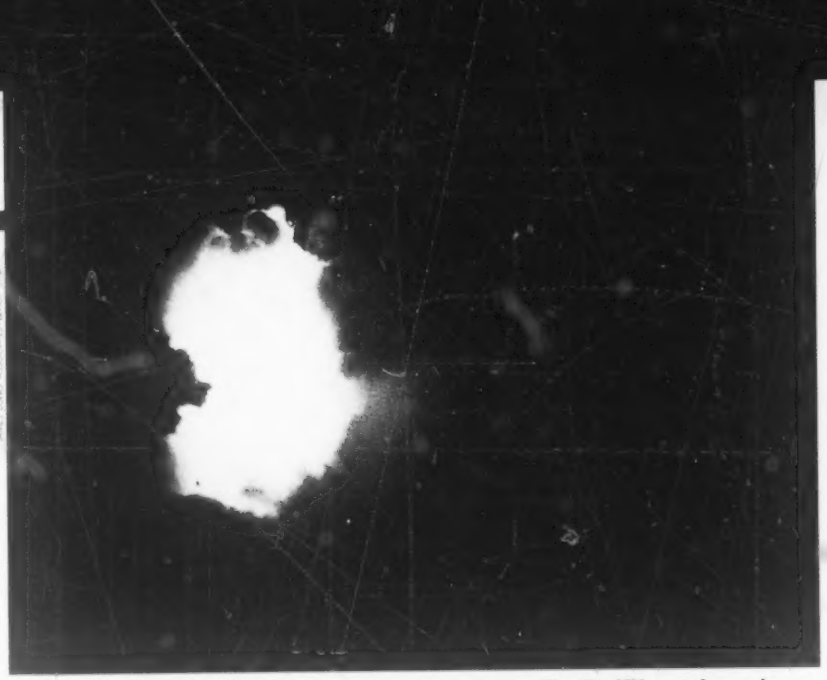
take more responsibility for their own defense, what Democratic Congresswoman Patricia Schroeder and others call burden sharing.

In any case the U.S. ought to drop the inventory to $1.6 trillion, which by Sullivan's accounting could be renewed every 31 years with an annual procurement budget of around $50 billion. For every $2 the U.S. devotes to procurement, it spends about $1 on research. By that formula the research budget could be pared from $37 billion this year to $23 billion. So the savings—$30 billion in procurement, $14 billion in research, together with $50 billion in payroll—is not far from the $100 billion target.

The math is a bit rough and ready, but the bottom line matches quite closely the calculations of experts who prune the force structure branch by branch. To get an idea of what a minimum military might look like, FORTUNE consulted more than 20 experts, relying in particular on several at Brookings.

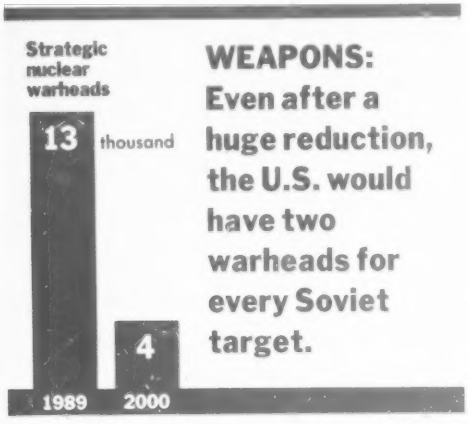
Since the 1960s, Brookings has been thought of as a shelter for liberal Democrats inclined to be dovish on military issues. The institution is more complex. The Brookings scholars interviewed for this article were Korb, a top official in Reagan's Pentagon, William W. Kaufmann, a one-time MIT professor who has analyzed military budgets for three decades, and John Steinbruner, a liberal Democrat who is an authority on strategic arms issues.

Their assumptions, moreover, were tested against those of other authorities. FORTUNE concludes that the outlays for an effective Army, Navy, Air Force, and strategic weapons system could be reduced to about $185 billion (in 1989 dollars) by the year 2000. An additional $20 billion in pensions would bring the total to $205 billion.



JAMES CRAIG ASSOCIATES—BLACK STAR

Both superpowers might feel safer if multiwarhead missiles, like this MX, were banned.



WEAPONS: Even after a huge reduction, the U.S. would have two warheads for every Soviet target.

■ **Army (total outlays in the year 2000: $40 billion).** The Army's 18 active-duty divisions could be sliced in half. A division consists of only 17,000 or so soldiers. But the nearly five divisions currently in Europe need so much support—from truck drivers to chaplains—that they require a total Army presence of 214,000, not counting almost as many dependents. Says Sullivan: "There is no more expensive way of guarding a foreign border than doing it with Americans."

If a treaty pushed the Soviets back from the border, the U.S. might be able to trim to two divisions in Europe and lower their support in the U.S. from five divisions to four. That balance would make the generals more comfortable than the present 1-to-1 ratio because they could rotate troops more often. Says General Edward C. Meyer, Army chief of staff from 1979 to 1983: "We may have a higher percentage of combat soldiers abroad for a longer time than anyone since the Roman Empire. That makes it hard to retain good people. They don't want to be away from home that long."

A division without dependents helps protect the demilitarized zone in Korea. And another stands ready in the U.S. to replace it. The South Koreans may already be strong enough to single-handedly repel an invasion from the North, says retired colonel William Taylor, former director of National Security Studies at West Point and now a scholar at the Center for Strategic and International Studies. Even though the army of the North outnumbers that of the South by about 840,000 to 630,000, Seoul has superior arms—American planes as well as domestically made tanks. The U.S. can gradually pull its force out of Korea and at the same time eliminate the stateside backup division.

The rest of the Army is made up of two airborne and five lightly equipped ground divisions—troops that can be quickly transported with rifle and toothbrush just about anywhere. But it is hard to imagine where the Pentagon would want to send that many troops all at once. Iran? "The Soviets aren't going into Iran, and neither are we," says Korb. The Philippines? Even if the U.S. wanted to dispatch all those troops in a hurry, it wouldn't have enough planes and ships to supply them. A soldier in battle shoots, eats, and otherwise consumes his own weight every day.

The Army should keep the two airborne divisions for emergencies—the Pentagon rushed 2,000 additional troops to Panama in May to reinforce the brigade of 10,300 protecting the Canal Zone. But the Army should declare the five other divisions surplus. If the Army needs help, it can call on the Marines, which will have three full divisions even after a 20% cut in their ranks.

■ **Air Force (total outlays in the year 2000: $50 billion).** This military branch has 24 wings of fighter-attack aircraft, generally 72 planes to a wing, on active duty. As the U.S. pulls soldiers out of Europe and Korea, the Air Force could eliminate at least eight wings: four in Europe (out of nine), the two in Korea, and two in the U.S. that back up the force overseas. Another $500 million or so could be saved by turning three U.S.-based wings over to reservists, who operate a dozen wings of their own.

About half the reservists are former mili-

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tary pilots who now fly commercially. On average they are in their late 30s, have flown military planes for more than 3,000 hours, compared with 1,800 hours for active-duty pilots, and generally perform at least as well in training exercises. A reserve pilot from Ogden, Utah, Danny Hamilton, won the last all–Air Force top-gun shootout. An experienced active-duty pilot costs an average of $50,000 a year in pay and benefits; a reserve pilot who trains 100 days, about $15,000. Nonetheless, reserve wings are only 20% less expensive to run, because the planes and the full-time mechanics are no cheaper.

■ **Navy (total outlays in the year 2000: $70 billion).** The Navy now has 563 ships, short of the 600-ship goal of the Reagan Administration. A more sensible target would be 500 ships. The Navy would still be the world's most powerful fleet, as it should be. If the decade ahead is, as many military experts expect, one of small wars erupting sporadically around the world, the Navy will be able to dispatch planes over North Africa, bombard a recalcitrant fortress in the Persian Gulf, or land a brigade of Marines on a beach in Southeast Asia.

With fewer troops to protect, the Navy could safely reduce by 30 the number of frigates and other escorts for convoys. It should also give up its attempt to keep ships on constant patrol in distant oceans, a strain on craft and even more on crews. Instead the Navy should keep much of the fleet in home waters. Says Kaufmann: "The ships should go out randomly and in force, a much more impressive demonstration of power than having one or two ships everywhere." On that kind of schedule, the Navy would not need the present 14 aircraft carrier groups, each a flotilla of as many as 19 ships. A dozen would be plenty.

■ **Strategic forces (total outlays in the year 2000: $25 billion).** The U.S. has 13,000 or so nuclear warheads (excluding 10,000 tactical weapons) and the Soviets about 11,000. Says Steinbruner: "There aren't more than 2,000 targets in the Soviet Union you can usefully attack." He suggests dropping the limit on warheads for both sides to 3,000. Kaufmann, convincingly cautious, would keep 4,000.

The ICBMs now in place—Minutemen with one or three warheads and MXs with up to ten bombs each—sit in silos in the Great Plains, vulnerable to accurate, multiwarhead Soviet missiles. So the Pentagon is going ahead with three expensive alternatives for protection: scattering 50 MX missiles on railway cars in an alert (estimated total cost: $5.8 billion); running 500 Midgetmen missiles around in trucks ($24 billion); and the Strategic Defense Initiative, whose object seems to have shifted away from building a shield over the whole country to providing guard dogs to keep incoming missiles away from the ICBMs.

Defense Secretary Richard Cheney

The Pentagon could abandon all three methods in favor of 500 or so single-warhead missiles in silos, 3,500 other warheads apportioned among the Navy's Trident submarines and the Air Force's B1-B bombers, and a treaty with the Soviets. Under such a treaty both superpowers would eliminate all multiwarhead missiles accurate enough to vaporize the other side's ICBMs. And if the Soviets cheat and tuck some silo-busters away? They would also have to figure out a way to simultaneously destroy the submarines, whose missiles can hit Soviet cities, and bombers, which could either penetrate Soviet airspace or fire cruise missiles from afar.

Gorbachev could fall and be replaced by a bellicose regime that would fire up the tank factories and march the troops back into Eastern Europe. That's why the U.S. should only match Soviet reductions, step by measured step. Policies don't necessarily last forever. But for a time the price of being a superpower could be somewhat more affordable. And America has better things to do with the money. F

SEEKING BIG MONEY IN PAPER AND PENS

Three new retail chains want to be the Toys "R" Us of the office supply industry. Huge selections and bargain prices make for fast growth.

■ *by Susan Caminiti*

TRY TO GUESS how much those paper clips, interoffice envelopes, and manila folders that disappear so quickly from the supply closet actually cost. Nope, try again. According to the National Office Products Association—yes, there is one—the average office employee uses $500 worth of supplies each year. Multiply that by 50, 60, or 100 workers. Now pay attention to those No. 2 pencils, rubber bands, and Post-it pads.

That's just what three fast-off-the-mark discount merchants are doing. The retailers—Staples, Office Depot, and Office Club—are taking aim at small and medium-size businesses, which often buy their supplies at retail. In the process the discounters are redefining the office products industry. They get their goods directly from manufacturers, not middlemen, and pass the cost savings along to their customers.

In warehouselike superstores the merchants stock up to 7,000 items, ranging from copy paper and fax machines to tea bags and microwave ovens. Customers stroll down aisles pushing shopping carts, just as at the grocery store, plucking electric pencil sharpeners and calculators off huge floor-to-ceiling shelves. The look is plain pipe rack, but no one comes for the décor. The attraction is prices that are 20% to 75% lower than the manufacturers' suggested ones. Those legal pads that set you back $16 a dozen? Here they are as low as $4.

This year the office products industry, which embraces computers and office furniture as well as pencils and paper, will likely do over $100 billion at retail, according to the National Office Products Association. The discount supermarkets—the first opened three years ago—have only a fraction of this huge market. But Montgomery Securities analyst Bo Cheadle estimates that these warehouses, which are similar to Toys "R" Us stores, will be the fastest-growing segment in specialty retail-

Packing up a customer's telephone order at a Staples outlet in Springfield, New Jersey

Comparison shopping—of calculators, no less—at an Office Depot store in Austin, Texas

ing over the next several years. Says Thomas Stemberg, the CEO of Staples, based in Newton, Massachusetts: "If you were looking for a big, growing industry that could benefit from modern distribution techniques, this is the one."

Because the business is so young, only one of the three outlets has been profitable for a full year: Office Depot of Boca Raton, Florida (see chart). Chief Executive David Fuente oversees 39 stores in the South and plans to increase that number to an ambitious 65 by yearend. Office Club, a 21-store chain with headquarters in Concord, California, is blanketing the West Coast. Staples operates 27 stores in the Northeast and recently set up shop in Ohio.

For now, each chain is tending its corner of the country. But as these stores saturate their home territories they are likely to start invading one another's turf. Stemberg, for one, welcomes the challenge: "The store with the best prices, best selection, and the most helpful service will survive."

"Customers usually pick only from the first six feet of space. So we use the area above as our warehouse."

EACH DISCOUNT office supply store offers its own membership card. To qualify, a shopper just fills out a short form including the size and type of his business. Membership privileges range from lower prices on a select group of fast-moving goods to speedier check approval at the register. What's in it for the stores? File cabinets full of information on the buying habits of shoppers. Office Club's 150,000 members are grouped by zip code so headquarters can tell which items sell best in, say, San Diego or Silicon Valley, and be sure the stores there are in stock. The California retailer makes the card a profitable concept in more ways than one: It alone charges for membership. The fees—$10 for a normal membership, $50 for a deluxe card with phone ordering and charge privileges—added up to $1.1 million last year.

Staples, which Stemberg launched in 1986, is the industry pioneer. Intrigued by how much money wholesale clubs were able to generate from their small selection of office supplies, Stemberg began asking his friends who owned small businesses what they paid for their pads and paper clips. As he suspected, the prices were close to full retail. When he posed as a purchasing agent trying to negotiate discounts from dealers, he found them unwilling to give more than a 20% price break. Says Stemberg: "The opportunity for this business became quite obvious."

With brightly lit stores carrying 5,000 items, Staples generates an average of $500 in sales per square foot. Rents are high in the Northeast, averaging $18 to $19 a square foot. Thus, Staples' central distribution center in Putnam, Connecticut, permits it to operate smaller stores (average: 16,000 square feet) than competitors that use their space as both warehouse and shop.

One of the staples at Staples is a 112-page catalogue of all its products, which it mails to customers about four times a year. The company takes phone orders and charges a small fee for deliveries. But Stemberg is finding that about 90% of sales come from shoppers who cart the stuff themselves.

Each Office Depot outlet sells an average of $150,000 worth of supplies a week. Stores take deliveries from manufacturers and display the merchandise on 12-foot steel shelves. Says CEO Fuente: "Customers pick only from the first six feet of space anyway. So we use the area above as our warehouse." Because his stores are located in the South, where rent is a relatively cheap $8 a square foot, Fuente is able to build stores as large as 27,000 square feet, about half the size of a football field. Like Staples, Office Depot runs a mail-order operation.

OFFICE CLUB has a narrower range of products than the other two chains—its stores offer only 2,200 items. Explains CEO Mark Begelman: "Instead of carrying file folders in packages of 25, 50, and 100, we carry only the 50s." Sales don't suffer—each club averages $458 a square foot—because customer shopping patterns show that 85% of Office Club sales are coming from only 650 items. The hottest seller: copy machine paper.

Though customers are quickly sold on the superstore concept, some manufacturers are taking longer to convince. They fear upsetting retailers and dealers of long standing. But Xerox has broadened its product line in these stores, and in April, IBM signed an agreement with Office Depot for a nine-month sales test of its $645 Personal Wheelwriter typewriter. Office Depot's price: $437. Says William McCracken, an IBM vice president: "If Office Depot is able to reach a new customer and not interfere with the profitability of our authorized dealers, then we would seriously think of expanding our distribution."

That could mean even more products for the office supply supermarkets. Get your shopping carts ready. F

REPORTER ASSOCIATE *Kate Ballen*

THE BIG THREE IN OFFICE PRODUCTS

COMPANY	SALES last 4 qtrs. in millions	EARNINGS last 4 qtrs in millions	INITIAL OFFERING PRICE	STOCK PRICE 6/26/89	LOCATIONS
OFFICE DEPOT	$173.8	$5.1	$6.667 6/1/88	$25.50	Alabama, Florida, Georgia, Kentucky, Missouri, North Carolina, South Carolina, Tennessee, Texas
STAPLES	$119.8	($1.9)	$19.00 4/28/89	$23.75	Connecticut, Maryland, Massachusetts, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Virginia
OFFICE CLUB	$73.8	($2.7)	$9.00 12/8/88	$15.375	Arizona, California, Colorado, Oregon, Washington

FORTUNE

THE FORTUNE INTERNATIONAL 500

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PHOTOGRAPH BY ROBERT [illegible]

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THE WORLD'S BIGGEST INDUSTRIAL CORPORATIONS

THE NEW SHAPE OF GLOBAL BUSINESS

A list of the world's 100 biggest industrial companies is a picture of the global economy—and as this year's compilation shows, the picture is changing. The titans of 20th-century industry—motor vehicles and oil, are still dominant, but their fortunes are diverging. Of the carmakers that also appeared last year, nearly all advanced in the rankings. Of the oil refiners, almost every one declined. A couple of newer giants, computers and electronics, are strongly challenging both industries' preeminence.

The companies were culled from the International 500 (beginning on page 290) and the FORTUNE 500 largest U.S. industrials, which appeared April 24. In past years this global group has comprised 50 companies. Now, for the first time, it has been expanded to 100 to reflect the growing importance of international business.

Which nations dominate? America holds a commanding lead, with 39 entrants, followed by Japan with 15 and West Germany with 12. In all, 15 countries are represented, including India and Kuwait. But the group is more nationally diversified than these numbers suggest. For example, General Motors, while classified as American, includes huge subsidiaries that employ thousands locally in Canada, Germany, Britain, Spain, Belgium, Brazil, and Mexico.

Last year was a splendid one for these global businesses. They included just a single money loser: Ruhrkohle, the West German coal mining company that slid into a $76 million hole. Companies that lost money in 1987—Texaco, Tenneco, and Nippon Steel—inched into the black partly by downsizing. Texaco raised cash by selling its West German subsidiary for $1.2 billion. Tenneco followed the same strategy, auctioning its domestic oil division for $7.6 billion. Nippon Steel reduced its payroll by 1,500 employees.

The top ten were a restless bunch. Only three appear in the same position as last year, including the leader, GM. Royal Dutch/Shell Group, No. 2 last year, switched places with Ford Motor, which rose from fourth on record sales. The world's two largest industrial companies now reside not only in the same country but in the same metropolitan area.

But Detroit must bow to Tokyo as host to the most companies on the list (12). Paris and London follow with nine and seven, respectively. New York City has three. Big companies don't necessarily need big cities. Nestlé is headquartered in Vevey, Switzerland, (population: 16,139) and Unisys is in Blue Bell, Pennsylvania (population: 1,600).

While Asia's economic health gets lots of attention, this list clearly shows Europe's growing power. For example, West German chemical concerns all gained ground on world industry leader Du Pont (No. 19). Hoechst (No. 31) boosted sales 13%, overtaking Bayer at No. 33. Both trail BASF (No. 30), which increased sales 12%. Du Pont raised revenues only 7%. A merger of European giants created the world leader in industrial equipment: Sweden's Asea combined with Switzerland's Brown Boveri to create Asea Brown Boveri, which appears on the list at No. 45.

Expanding the list to 100 has brought new industries. The beverage business is represented by PepsiCo at No. 70, though the company was helped by its food businesses. Rival Coca-Cola's revenues were $1.5 billion too low to make the list. Goodyear (No. 85) shows up as the world's leading producer of rubber products. Weyerhaeuser, at No. 92, ranks as the world's biggest forest products company.

Only one company departed. AT&T, formerly No. 13, was reclassified and now tops the U.S. list of diversified service companies, with sales of $35 billion.

Last year was a remarkable one for automakers. Toyota, Chrysler, Fiat, Nissan, Peugeot, and Honda all moved up, averaging a rise of four spots each. GM's sales topped $120 billion, a record and nearly $30 billion more than Ford's. But its profits were $4.9 billion compared with Ford's $5.3 billion.

Petroleum refining, the other perennial industry at the top of the list, hasn't been having much luck since the dip in the price of crude oil. Although Exxon hung on to its No. 3 position, its competitors in the top ten—Royal Dutch/Shell, Mobil, and British Petroleum—all dropped.

Dominating the fast-expanding computer and electronics industries, No. 5 IBM is again the world's most profitable corporation, with earnings last year of $5.8 billion. General Electric moved up three spots, to No. 7, with a 26% sales burst—and look at how many other electronics manufacturers jumped up the list: Hitachi, Siemens, Matsushita Electric, Samsung, Toshiba, NEC, and Daewoo.

No one expects these companies to eliminate the Exxons and Shells from the top ranks of world commerce. But for those who argue that the global economy is destined to be influenced more by information and less by natural resources, the new names among the world's top industrial companies provide strong support.

– **Susan E. Kuhn and David J. Morrow**

Long-distance marketing: A Siemens engineer in Munich tests telephones built for customers around the world.

PHOTOGRAPH BY HANS VERHUFEN

THE WORLD'S BIGGEST INDUSTRIAL CORPORATIONS

RANK 1988	RANK '87	COMPANY	HEADQUARTERS	INDUSTRY	SALES $ Millions	PROFITS $ Millions
1	1	GENERAL MOTORS	DETROIT	MOTOR VEHICLES	121,085.4	4,856.3
2	4	FORD MOTOR	DEARBORN, MICH.	MOTOR VEHICLES	92,445.6	5,300.2
3	3	EXXON	NEW YORK	PETROLEUM REFINING	79,557.0	5,260.0
4	2	ROYAL DUTCH/SHELL GROUP	LONDON, THE HAGUE	PETROLEUM REFINING	78,381.1	5,238.7
5	5	INTERNATIONAL BUSINESS MACHINES	ARMONK, N.Y.	COMPUTERS	59,681.0	5,806.0
6	8	TOYOTA MOTOR	TOYOTA CITY (JAPAN)	MOTOR VEHICLES	50,789.9	2,314.6
7	10	GENERAL ELECTRIC	FAIRFIELD, CONN.	ELECTRONICS	49,414.0	3,386.0
8	6	MOBIL	NEW YORK	PETROLEUM REFINING	48,198.0	2,087.0
9	7	BRITISH PETROLEUM	LONDON	PETROLEUM REFINING	46,174.0	2,155.3
10	9	IRI	ROME	METALS	45,521.5	921.9
11	11	DAIMLER-BENZ	STUTTGART	MOTOR VEHICLES	41,817.9	953.1
12	16	HITACHI	TOKYO	ELECTRONICS	41,330.7	989.0
13	21	CHRYSLER	HIGHLAND PARK, MICH.	MOTOR VEHICLES	35,472.7	1,050.2
14	18	SIEMENS	MUNICH	ELECTRONICS	34,129.4	757.0
15	17	FIAT	TURIN	MOTOR VEHICLES	34,039.3	2,324.7
16	19	MATSUSHITA ELECTRIC INDUSTRIAL	OSAKA	ELECTRONICS	33,922.5	1,177.2
17	15	VOLKSWAGEN	WOLFSBURG (W. GER.)	MOTOR VEHICLES	33,696.2	420.1
18	12	TEXACO	WHITE PLAINS, N.Y.	PETROLEUM REFINING	33,544.0	1,304.0
19	14	E.I. DU PONT DE NEMOURS	WILMINGTON, DEL.	CHEMICALS	32,514.0	2,190.0
20	20	UNILEVER	LONDON/ROTTERDAM	FOOD	30,488.2	1,485.6
21	24	NISSAN MOTOR	TOKYO	MOTOR VEHICLES	29,097.1	463.0
22	22	PHILIPS' GLOEILAMPENFABRIEKEN	EINDHOVEN (NETHERLANDS)	ELECTRONICS	28,370.5	477.1
23	27	NESTLÉ	VEVEY (SWITZERLAND)	FOOD	27,803.0	1,392.7
24	32	SAMSUNG	SEOUL	ELECTRONICS	27,386.1	464.3
25	25	RENAULT	PARIS	MOTOR VEHICLES	27,109.7	1,496.7
26	29	PHILIP MORRIS	NEW YORK	TOBACCO	25,860.0	2,337.0
27	35	TOSHIBA	TOKYO	ELECTRONICS	25,440.8	438.9
28	26	ENI	ROME	PETROLEUM REFINING	25,226.8	917.3
29	23	CHEVRON	SAN FRANCISCO	PETROLEUM REFINING	25,196.0	1,768.0
30	28	BASF	LUDWIGSHAFEN (W. GER.)	CHEMICALS	24,960.5	802.2
31	34	HOECHST	FRANKFURT	CHEMICALS	23,308.1	1,037.8
32	37	PEUGEOT	PARIS	MOTOR VEHICLES	23,249.7	1,485.8
33	33	BAYER	LEVERKUSEN (W. GER.)	CHEMICALS	23,025.9	1,055.5
34	39	HONDA MOTOR	TOKYO	MOTOR VEHICLES	22,236.5	819.5
35	30	CGE (CIE GÉNÉRALE D'ÉLECTRICITÉ)	PARIS	SCIEN. & PHOTO. EQUIP.	21,487.5	362.4
36	31	ELF AQUITAINE	PARIS	PETROLEUM REFINING	21,175.0	1,209.9
37	36	AMOCO	CHICAGO	PETROLEUM REFINING	21,150.0	2,063.0
38	38	IMPERIAL CHEMICAL INDUSTRIES	LONDON	CHEMICALS	20,839.0	1,490.9
39	47	NEC	TOKYO	ELECTRONICS	19,626.1	183.4
40	41	OCCIDENTAL PETROLEUM	LOS ANGELES	FOOD	19,417.0	302.0
41	42	PROCTER & GAMBLE	CINCINNATI	SOAPS, COSMETICS	19,336.0	1,020.0
42	•	FERRUZZI FINANZIARIA	RAVENNA	CHEMICALS	19,311.1	425.6
43	40	UNITED TECHNOLOGIES	HARTFORD	AEROSPACE	18,087.8	659.1
44	43	ATLANTIC RICHFIELD	LOS ANGELES	PETROLEUM REFINING	17,626.0	1,583.0
45	•	ASEA BROWN BOVERI	ZURICH	INDUS. AND FARM EQUIP.	17,562.0	386.0
46	•	DAEWOO	SEOUL	ELECTRONICS	17,251.2	33.3
47	49	NIPPON STEEL	TOKYO	METALS	17,108.9	291.7
48	•	EASTMAN KODAK	ROCHESTER, N.Y.	SCIEN. & PHOTO. EQUIP.	17,034.0	1,397.0
49	46	BOEING	SEATTLE	AEROSPACE	16,962.0	614.0
50	44	RJR NABISCO	ATLANTA	FOOD	16,956.0	1,393.0

U.S. EUROPE ASIA LATIN AMERICA MIDDLE EAST • NOT ON LAST YEAR'S LIST

RANK 1988	'87	COMPANY	HEADQUARTERS	INDUSTRY	SALES $ Millions	PROFITS $ Millions
51	•	MITSUBISHI ELECTRIC	TOKYO	ELECTRONICS	16,857.4	160.6
52	•	THYSSEN	DUISBURG (W. GER.)	METALS	16,796.0	372.3
53	•	DOW CHEMICAL	MIDLAND, MICH.	CHEMICALS	16,682.0	2,398.0
54	•	XEROX	STAMFORD, CONN.	SCIEN. & PHOTO. EQUIP.	16,441.0	388.0
55	•	USX	PITTSBURGH	PETROLEUM REFINING	15,792.0	756.0
56	50	VOLVO	GOTEBORG (SWEDEN)	MOTOR VEHICLES	15,752.1	807.3
57	•	ROBERT BOSCH	STUTTGART	MOTOR VEHICLES	15,746.7	282.6
58	48	TENNECO	HOUSTON	INDUS. AND FARM EQUIP.	15,707.0	822.0
59	•	MAZDA MOTOR	HIROSHIMA	MOTOR VEHICLES	15,150.9	76.4
60	•	MCDONNELL DOUGLAS	ST. LOUIS	AEROSPACE	15,072.0	350.0
61	•	INI	MADRID	METALS	14,985.5	268.7
	45	PETROBRÁS (PETRÓLEO BRASILEIRO)	RIO DE JANEIRO	PETROLEUM REFINING	14,806.4	765.0
63	•	FUJITSU	TOKYO	COMPUTERS	14,797.3	304.5
64	•	MITSUBISHI MOTORS	TOKYO	MOTOR VEHICLES	14,183.3	96.2
65	•	BAT INDUSTRIES	LONDON	TOBACCO	14,066.7	1,717.1
66	•	TOTAL	PARIS	PETROLEUM REFINING	13,986.6	248.4
67	•	MITSUBISHI HEAVY INDUSTRIES	TOKYO	INDUS. AND FARM EQUIP.	13,398.0	221.8
68	•	USINOR	PARIS	METALS	13,247.1	737.5
	•	PEMEX (PETRÓLEOS MEXICANOS)	MEXICO CITY	PETROLEUM REFINING	13,060.0	570.6
70	•	PEPSICO	PURCHASE, N.Y.	BEVERAGES	13,007.0	762.2
71	•	NIPPON OIL	TOKYO	PETROLEUM REFINING	12,773.0	167.0
72	•	THOMSON	PARIS	ELECTRONICS	12,566.6	201.0
73	•	WESTINGHOUSE ELECTRIC	PITTSBURGH	ELECTRONICS	12,499.5	822.8
74	•	KUWAIT PETROLEUM	SAFAT	PETROLEUM REFINING	12,078.0	435.2
75	•	CIBA-GEIGY	BASEL	CHEMICALS	12,059.5	905.5
76	•	ELECTROLUX	STOCKHOLM	ELECTRONICS	12,055.4	342.8
77	•	ROCKWELL INTERNATIONAL	EL SEGUNDO, CALIF.	AEROSPACE	11,946.3	811.9
78	•	ALLIED-SIGNAL	MORRISTOWN, N.J.	AEROSPACE	11,909.0	463.0
79	•	BMW (BAYERISCHE MOTOREN WERKE)	MUNICH	MOTOR VEHICLES	11,762.5	215.8
80	•	RUHRKOHLE	ESSEN	MINING, CRUDE-OIL PROD.	11,749.9	(75.5)
81	•	MANNESMANN	DUSSELDORF	INDUS. AND FARM EQUIP.	11,619.9	135.2
82	•	DIGITAL EQUIPMENT	MAYNARD, MASS.	COMPUTERS	11,475.4	1,305.6
83	•	PHILLIPS PETROLEUM	BARTLESVILLE, OKLA.	PETROLEUM REFINING	11,304.0	650.0
84	•	RHÔNE-POULENC	PARIS	CHEMICALS	10,971.3	613.1
85	•	GOODYEAR TIRE & RUBBER	AKRON	RUBBER PRODUCTS	10,810.4	350.1
86	•	LOCKHEED	CALABASAS, CALIF.	AEROSPACE	10,667.0	624.0
87	•	MINNESOTA MINING & MFG.	ST. PAUL	SCIEN. & PHOTO. EQUIP.	10,581.0	1,154.0
88	•	CATERPILLAR	PEORIA, ILL.	INDUS. AND FARM EQUIP.	10,435.0	616.0
89	•	SARA LEE	CHICAGO	FOOD	10,423.8	325.1
90	•	SONY	TOKYO	ELECTRONICS	10,133.9	265.6
91	•	BRITISH AEROSPACE	LONDON	AEROSPACE	10,044.6	277.9
92	•	WEYERHAEUSER	TACOMA	FOREST PRODUCTS	10,004.2	564.4
93	•	ADAM OPEL	RUSSELSHEIM (W. GER.)	MOTOR VEHICLES	9,935.8	287.2
94	•	UNISYS	BLUE BELL, PA.	COMPUTERS	9,902.0	680.6
95	•	HANSON	LONDON	FOOD	9,900.4	1,986.8
96	•	PETROFINA	BRUSSELS	PETROLEUM REFINING	9,898.5	549.1
97	•	SAINT-GOBAIN	PARIS	BUILDING MATERIALS	9,886.6	679.1
98	•	INDIAN OIL	BOMBAY	PETROLEUM REFINING	9,853.7	316.8
99	•	HEWLETT-PACKARD	PALO ALTO, CALIF.	COMPUTERS	9,831.0	816.0
100	•	ALUMINUM CO. OF AMERICA	PITTSBURGH	METALS	9,795.3	861.4
		TOTALS			2,308,810.8	107,799.6

THE WORLD'S BIGGEST COMMERCIAL BANKS

RISING IN THE PACIFIC

The table across the page is FORTUNE's first annual list of the World's 50 Biggest Banks. How big are they? Their total assets are $8.2 trillion—more than the combined gross national products of the U.S., Britain, Brazil, France, and West Germany. Put another way, that's enough to buy a Porsche 944 for every man, woman, and child in America.

As you would expect, the Japanese are prominent on the list, with 23 institutions controlling nearly 60% of the total assets. U.S. banks are represented sparsely. The list includes just four: Citicorp (No. 12), Chase Manhattan (No. 37), BankAmerica (No. 38), and J.P. Morgan (No. 49). That performance may seem embarrassing in light of America's size. The nation's economy is still 50% larger than Japan's. Two smaller countries, West Germany and France, have five banks each on the list, and Britain has four.

But U.S. banks have nothing to be ashamed of when it comes to profits. The Third World debt crisis a couple of years ago forced them to streamline, and the vibrant U.S. economy has kept them humming. Citicorp earned $1.9 billion last year, far more than any other bank on the list. Chase's $1.1 billion and Morgan's $1 billion in profits beat all but a handful of the others. BankAmerica's $726 million was well above the list's average and not bad for a bank that had lost money in the three previous years.

A list of the world's biggest banks may say something about the shape of the world economy. These 50 banks come from only North America, Europe, and Asia. South America, Africa, and Australia are not represented. The breakdown among the Big Three: North America has five of the 50, Europe 20, and Asia 25.

RANK 1988		HEADQUARTERS	ASSETS $ Millions	DEPOSITS $ Millions
1	DAI-ICHI KANGYO BANK	TOKYO	379,322.8	283,185.4
2	SUMITOMO BANK	OSAKA	363,232.6	267,995.2
3	FUJI BANK	TOKYO	360,529.8	258,574.7
4	MITSUBISHI BANK	TOKYO	348,999.0	251,146.9
5	SANWA BANK	OSAKA	330,705.4	246,625.5
6	INDUSTRIAL BANK OF JAPAN	TOKYO	272,918.3	216,615.9
7	NORINCHUKIN BANK	TOKYO	235,944.3	214,256.7
8	TOKAI BANK	NAGOYA	227,644.3	172,072.5
9	MITSUI BANK	TOKYO	211,358.6	152,698.9
10	CRÉDIT AGRICOLE	PARIS	210,566.3	167,103.5
11	MITSUBISHI TRUST & BANKING	TOKYO	208,341.7	178,030.5
12	CITICORP	NEW YORK	207,666.0	124,072.0
13	BANQUE NATIONALE DE PARIS	PARIS	196,922.3	169,887.1
14	BARCLAYS BANK	LONDON	189,250.5	157,401.0
15	BANK OF TOKYO	TOKYO	185,428.8	129,368.4
16	LONG-TERM CREDIT BANK OF JAPAN	TOKYO	184,752.9	147,167.6
17	SUMITOMO TRUST & BANKING	OSAKA	182,529.1	162,201.0
18	CRÉDIT LYONNAIS	PARIS	178,848.1	153,745.4
19	NATIONAL WESTMINSTER BANK	LONDON	178,394.1	153,688.1
20	TAIYO KOBE BANK	KOBE	175,470.4	131,757.8
21	MITSUI TRUST & BANKING	TOKYO	174,943.5	151,352.7
22	DEUTSCHE BANK	FRANKFURT	172,142.5	154,824.6
23	YASUDA TRUST & BANKING	TOKYO	167,125.4	126,845.0
24	SOCIÉTÉ GÉNÉRALE	PARIS	155,457.3	134,494.6
25	DAIWA BANK	OSAKA	150,733.7	76,790.4
26	BANK OF CHINA	BEIJING	149,997.5	60,068.4
27	DRESDNER BANK	FRANKFURT	130,230.6	121,145.4
28	CIE FINANCIÈRE DE PARIBAS	PARIS	121,597.4	94,916.2
29	TOYO TRUST & BANKING	TOKYO	120,873.1	109,130.6
30	NIPPON CREDIT BANK	TOKYO	115,176.8	92,108.1
31	HONGKONG & SHANGHAI BANKING	HONG KONG	113,165.7	101,886.9
32	UNION BANK OF SWITZERLAND	ZÜRICH	110,907.4	92,516.3
33	KYOWA BANK	TOKYO	110,613.7	83,621.8
34	SWISS BANK CORP.	BASEL	102,602.4	86,544.4
35	COMMERZBANK	FRANKFURT	101,719.9	95,557.8
36	MIDLAND BANK	LONDON	100,785.9	86,777.3
37	CHASE MANHATTAN CORP.	NEW YORK	97,455.1	64,056.7
38	BANKAMERICA CORP.	SAN FRANCISCO	94,647.0	77,150.0
39	LLOYDS BANK	LONDON	93,741.8	82,934.2
40	SHOKO CHUKIN BANK	TOKYO	93,210.0	84,031.6
41	SAITAMA BANK	URAWA	93,168.3	70,988.5
42	WESTDEUTSCHE LANDESBANK	DÜSSELDORF	93,037.5	85,903.0
43	BAYERISCHE VEREINSBANK	MUNICH	91,669.7	85,675.7
44	BANCA NAZIONALE DEL LAVORO	ROME	90,968.7	76,262.2
45	ROYAL BANK OF CANADA	MONTREAL	90,230.7	72,312.2
46	ZENSHINREN BANK	TOKYO	86,874.6	79,358.2
47	ALGEMENE BANK NEDERLAND	AMSTERDAM	85,069.9	76,026.0
48	AMSTERDAM-ROTTERDAM BANK	AMSTERDAM	83,967.0	73,955.0
49	J.P. MORGAN & CO.	NEW YORK	83,923.0	42,469.0
50	ISTITUTO BANCARIO SAN PAOLO DI TORINO	TURIN	81,648.1	61,861.4
	TOTALS		8,186,509.5	6,439,158.4

THE 50 INTERNATIONAL

THE BIGGEST INDUSTRIAL

POWERFUL PROFITS AROUND THE WORLD

Results for the International 500 companies in 1988 were better than good. They were stellar. Sales increased some $400 billion, a 16% jump over 1987. Profits soared almost 50%, to $116 billion, and the International 500 employed 300,000 more workers. How hard is it to keep up with this crowd? Showa Sangyo, a Japanese food company that was No. 499 on last year's list, pushed sales up $70 million—but that wasn't enough to make this year's cutoff.

Toyota surpassed British Petroleum to become the second-largest industrial company outside the U.S. The key: Toyota's relentless annual sales growth averaging 22% for the past five years vs. the petroleum industry's slump. Oil's decline hit Royal Dutch/Shell too, but not hard enough to knock it out of the top spot. Near the bottom of the list, a pair of Japanese companies with familiar brand names make their first appearances: Kikkoman, the maker of soy sauce, and Nintendo, the conqueror of the videogame industry.

This year's award for Most Improved Performance by an Industry goes to mining. Median sales for companies in this category rose 24%, and median profits soared 148%. Inco, the Canadian producer of nickel, increased sales 82% in 1988, the largest rise of any company not affected by a merger or an accounting change. Inco's revenue explosion produced profits of $735 million, more than double the company's previous high, and the shareholders managed to get their hands on some of it. In December they approved a recapitalization that paid a cash dividend of over $1 billion.

Precious metals produced sparkling profits, even in economically isolated South Africa, where the rand dropped 19% against the dollar in 1988. De Beers celebrated its centennial year by doubling profits on record diamond sales of $4.2 billion, a 35% increase. The diamond's humble ancestor, coal, continued to smudge the spotlight. British Coal, a perennial money loser, saw no black on the bottom line for the tenth consecutive year.

Rubber products manufacturers enjoyed a bonanza last year as a result of factors that will be tough to duplicate. Bridgestone's sales soared 64% after the Japanese company bought Firestone in May and became the world's No. 2 producer (behind Goodyear). Sumitomo Rubber Industries' sales rocketed 71%, boosted by Dunlop, its sporting goods division. Dunlop supplies tennis rackets to Steffi Graf, and when she won tennis's grand slam last year, Dunlop sales rose 145%.

As always, mergers provided new names for the list and eye-catching leaps in the rankings. Italy's Ferruzzi Finanziaria appears at No. 28, following the Ferruzzi family's acquisition of a controlling interest in Montedison (No. 48 on last year's list) and subsequent reorganization of its holdings, including Ferruzzi Agricola—No. 253 last year. New Zealand's Fletcher Challenge boosted sales 77% largely through two acquisitions, and revenues of Australia's Bond Corporation Holdings rose 144% after it bought eight companies in a ten-month shopping spree.

The dollar's weakness against most major currencies polished a lot of performances, no matter how mediocre. British Petroleum's sales fell £1.6 billion, but that drop became a $968 million gain in the transatlantic conversion. Yen users did even better. Kawasaki Heavy Industries' sales plunged 14% last year, but slipped only 0.6% in dollars.

As always, the list includes overseas subsidiaries of U.S. companies if the parent provides separate financial results. IBM, which draws over half its revenue from outside the States, has six qualifying entrants. But not all American companies boast a robust fleet of international subsidiaries. Last year Mobil's British and Canadian subsidiaries fell off the list. This year depressed sales eliminated the company's Italian and French units. Mobil Oil of West Germany, despite a drop of 77 places, is the last to hold on, at No. 310.

– **Susan E. Kuhn and David J. Morrow**

Australia's money-coining CRA Ltd. controls this diamond mine.

CORPORATIONS OUTSIDE THE U.S.

RANK BY SALES 1988	1987	COMPANY	COUNTRY	SALES $ Millions	PROFITS $ Millions	PROFITS Rank	ASSETS $ Millions	ASSETS Rank	STOCKHOLDERS' EQUITY $ Millions	STOCKHOLDERS' EQUITY Rank	EMPLOYEES Number	EMPLOYEES Rank	INDUSTRY CODE
1	1	ROYAL DUTCH/SHELL GROUP	BRITAIN NETH.	78,381.1	5,238.7	1	85,681.3	1	45,485.6	1	134,000	29	29
2	3	TOYOTA MOTOR	JAPAN	50,789.9	2,314.6	3	40,817.6	5	24,603.2	3	86,082	51	40
3	2	BRITISH PETROLEUM	BRITAIN	46,174.0	2,155.3	4	53,030.6	2	20,830.3	4	125,950	33	29
4	4	IRI	ITALY	45 521.5	921.9	28	N.A.		N.A.		417,826	2	33
5	5	DAIMLER-BENZ	W. GERMANY	41,817.9	953.1	26	29,281.6	13	6,031.6	32	338,749	4	40
6	7	HITACHI	JAPAN	41,330.7	989.0	23	49,862.4	3	16,265.5	6	263,996	8	36
7	9	SIEMENS	W. GERMANY	34 129.4	757.0	39	31,829.8	10	8,998.8	13	353,000	3	36
8	8	FIAT	ITALY	34,039.3	2,324.7	2	40,424.3	6	10,358.6	10	277,353	7	40
9	10	MATSUSHITA ELECTRIC INDUSTRIAL	JAPAN	33,922.5	1,177.2	18	39,011.4	7	19,961.4	5	134,186	28	36
10	6	VOLKSWAGEN	W. GERMANY	33,696.2	420.1	77	28,358.8	15	6,116.8	30	252,066	9	40
11	11	UNILEVER	BRITAIN NETHERLANDS	30,488.2	1,485.6	11	19,893.5	28	5,810.7	33	291,000	6	20
12	13	NISSAN MOTOR	JAPAN	29,097.1	463.0	71	33,631.2	9	11,645.2	8	108,716	40	40
13	12	PHILIPS' GLOEILAMPENFABRIEKEN	NETH.	28,370.5	477.1	67	25,483.5	19	7,729.8	18	310,258	5	36
14	16	NESTLÉ	SWITZERLAND	27,803.0	1,392.7	13	22,083.2	24	7,151.1	19	197,722	12	20
15	20	SAMSUNG	SOUTH KOREA	27,386.1	464.3	70	22,192.7	23	2,749.2	94	175,710	14	36
16	14	RENAULT	FRANCE	27,109.7	1,496.7	8	18,185.3	33	2,312.2	115	181,715	13	40
17	23	TOSHIBA	JAPAN	25,440.8	438.9	72	27,873.8	17	5,785.2	34	122,000	34	36
18	15	ENI	ITALY	25,226.8	917.3	29	36,297.4	8	8,928.1	14	116,364	39	29
19	17	BASF	W. GERMANY	24,960.5	802.2	35	18,454.8	32	7,050.6	21	134,834	27	28
20	22	HOECHST	W. GERMANY	23,308.1	1,037.8	20	17,693.8	36	5,713.0	37	164,527	19	28
21	24	PEUGEOT	FRANCE	23,249.7	1,485.8	10	16,140.0	40	4,828.9	47	158,100	20	40
22	21	BAYER	W. GERMANY	23,025.9	1,055.5	19	19,365.7	29	8,313.5	16	165,700	18	28
23	26	HONDA MOTOR	JAPAN	22,236.5	819.5	33	14,382.1	49	6,282.7	28	58,320	77	40
24	18	CGE (CIE GÉNÉRALE D'ÉLECTRICITÉ)	FRANCE	21,487.5	362.4	92	29,590.1	12	2,950.2	85	204,100	10	36
25	19	ELF AQUITAINE	FRANCE	21,175.0	1,209.9	16	28,032.0	16	9,645.4	12	73,000	64	29
26	25	IMPERIAL CHEMICAL INDUSTRIES	BRITAIN	20,839.0	1,490.9	9	16,999.9	37	7,098.4	20	130,400	31	28
27	28	NEC	JAPAN	19,626.1	183.4	192	23,408.0	21	4,780.2	48	102,452	44	36
28	•	FERRUZZI FINANZIARIA	ITALY	18,311.1	425.6	76	26,850.2	18	2,362.4	112	75,811	60	28
29	•	ASEA BROWN BOVERI	SWITZERLAND	17,562.0	386.0	85	18,965.0	30	3,122.0	78	169,459	16	45
30	35	DAEWOO	SOUTH KOREA	17,251.2	33.3	425	24,397.2	20	2,917.3	86	93,930	47	36
31	29	NIPPON STEEL	JAPAN	17,108.9	291.7	117	28,614.8	14	5,459.7	40	67,766	68	33
32	38	MITSUBISHI ELECTRIC	JAPAN	16,857.4	160.6	214	17,961.3	34	4,444.8	53	75,795	61	36
33	33	THYSSEN	W. GERMANY	16,796.0	372.3	87	10,333.4	74	2,150.2	121	127,779	32	33
34	30	VOLVO	SWEDEN	15,752.1	807.3	34	14,536.6	46	4,574.6	51	78,614	56	40
35	34	ROBERT BOSCH	W. GERMANY	15,746.7	282.6	124	11,447.1	64	3,254.9	74	167,780	17	40
36	40	GENERAL MOTORS OF CANADA	CANADA	15,657.2	291.4	118	4,912.2	173	2,254.0	118	43,571	111	40
37	46	MAZDA MOTOR	JAPAN	15,150.9	76.4	310	9,576.8	80	2,647.9	101	28,027	178	40
38	39	INI	SPAIN	14,985.5	268.7	138	30,021.6	11	6,846.5	23	155,945	24	33
39	27	PETROBRÁS	BRAZIL	14,806.4	765.0	37	13,535.0	51	6,973.3	22	67,080	70	29
40	43	FUJITSU	JAPAN	14,797.3	304.5	110	18,667.2	31	6,664.2	25	94,825	46	44
41	56	MITSUBISHI MOTORS	JAPAN	14,183.3	96.2	282	11,593.2	63	1,250.9	195	25,600	195	40
42	41	BAT INDUSTRIES	BRITAIN	14,066.7	1,717.1	7	17,909.6	35	6,512.4	26	156,694	23	21
43	31	TOTAL	FRANCE	13,986.6	248.4	149	14,512.7	47	3,599.7	64	41,862	117	29
44	45	MITSUBISHI HEAVY INDUSTRIES	JAPAN	13,398.0	221.8	166	22,472.6	22	4,907.3	45	56,100	82	45
45	44	USINOR	FRANCE	13,247.1	737.5	40	13,188.5	53	2,094.2	126	80,700	54	33
46	36	PEMEX (PETRÓLEOS MEXICANOS)	MEXICO	13,060.0	570.6	56	45,669.3	4	28,216.6	2	170,766	15	29
47	51	FORD MOTOR OF CANADA	CANADA	12,927.0	218.8	167	3,025.0	284	1,187.6	207	27,300	182	40
48	47	NIPPON OIL	JAPAN	12,773.0	167.0	204	12,896.0	57	3,310.4	70	10,178	373	29
49	54	THOMSON	FRANCE	12,566.6	201.0	177	21,816.0	25	1,450.8	175	104,000	43	36
50	53	KUWAIT PETROLEUM	KUWAIT	12,078.0	435.2	74	21,495.7	26	14,845.2	7	15,450	298	29

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51	50	CIBA-GEIGY	SWITZERLAND	12,059.5[5]	905.5	30	16,452.1	39	10,233.0	11	88,757	49	28
52	49	ELECTROLUX	SWEDEN	12,055.4	342.8	97	9,363.4	84	2,088.9	127	147,200	25	36
53	52	BMW (BAYERISCHE MOTOREN)	W. GERMANY	11,762.5	215.8	170	6,519.5	128	1,955.4	134	58,000	78	40
54	42	RUHRKOHLE	W. GERMANY	11,749.9	(75.5)	492	11,049.1	69	582.5	365	120,341	36	10
55	59	MANNESMANN	W. GERMANY	11,619.9	135.2	235	8,381.4	97	2,114.1	125	121,782	35	45
56	58	RHÔNE-POULENC	FRANCE	10,971.3	613.1	50	11,169.6	68	3,103.5	80	79,670	55	28
57	57	FORD-WERKE	W. GERMANY	10,951.2	309.9	108	5,072.0	167	928.5	267	49,530	94	40
58	65	FORD MOTOR	BRITAIN	10,573.6	776.6	36	8,241.3	100	1,770.5	143	47,900	101	40
59	71	SONY	JAPAN	10,133.9[5]	265.6[5]	141	15,043.2[5]	44	5,240.5[5]	42	60,500[5]	75	36
60	94	BRITISH AEROSPACE	BRITAIN	10,044.6	277.9	127	11,744.4	62	3,823.2	61	131,300	30	41
61	55	ADAM OPEL	W. GERMANY	9,935.8	287.2	121	3,767.3	230	861.5	285	52,675	89	40
62	62	HANSON	BRITAIN	9,900.4	1,986.8	5	13,210.1	52	3,955.2	59	105,000	41	20
63	64	PETROFINA	BELGIUM	9,898.5	549.1	58	9,469.7	81	3,177.0	76	23,000	217	29
64	37	SAINT-GOBAIN	FRANCE	9,886.6	679.1	45	11,395.7	65	3,257.4	73	84,689	53	32
65	63	INDIAN OIL	INDIA	9,853.7	316.8	102	3,978.9	215	1,340.9	187	33,602	142	29
66	89	BTR	BRITAIN	9,748.3	840.0	32	8,387.1	96	2,469.1	107	98,620	45	32
67	60	CANADIAN PACIFIC	CANADA	9,742.9[5]	664.9	47	14,797.8	45	6,122.7	29	76,400	58	26
68	67	PETRÓLEOS DE VENEZUELA	VENEZUELA	9,507.8	1,018.6	21	12,935.4	56	11,114.6	9	45,069	107	29
69	73	GEC (GENERAL ELECTRIC CO.)	BRITAIN	9,457.1	757.7	38	10,102.2	77	5,122.2	44	157,262	22	36
70	70	SANYO ELECTRIC	JAPAN	9,375.6[5]	47.7	381	13,691.6	50	5,414.8	41	39,179	123	36
71	78	BARLOW RAND	SOUTH AFRICA	9,314.6[5]	278.5	126	5,447.9	156	1,113.6	224	157,483	21	20
72	120	BRIDGESTONE	JAPAN	9,296.0	310.2	107	11,194.3	67	3,022.2	82	88,148	50	30
73	81	IBM JAPAN	JAPAN	9,269.6[5]	665.1[5]	46	5,495.2[5]	154	2,490.5[5]	105	21,061[5]	235	44
74	83	ISUZU MOTORS	JAPAN	9,267.9[5]	51.0	370	7,001.2	121	1,124.8	220	24,443	209	40
75	69	NORSK HYDRO	NORWAY	9,202.0	526.4	60	11,276.0	66	2,507.2	104	39,009	124	28
76	75	GRAND METROPOLITAN	BRITAIN	9,024.7	1,244.6	15	9,885.9	79	5,760.7	35	89,753	48	49
77	86	NIPPONDENSO	JAPAN	8,962.5[5]	301.1[5]	112	8,213.3[5]	101	4,020.6[5]	57	47,359[5]	102	40
78	79	IDEMITSU KOSAN	JAPAN	8,814.9[5]	9.2[5]	471	10,123.1[5]	76	337.9[5]	441	5,497[5]	451	29
79	85	METALLGESELLSCHAFT	W. GERMANY	8,757.4	64.1	337	4,424.3	193	564.4	369	25,132	201	33
80	74	MICHELIN	FRANCE	8,702.0	397.4	83	10,526.0	72	2,360.8	113	117,000	38	30
81	80	MAN	W. GERMANY	8,639.0	103.1	274	7,574.7	111	1,180.9	209	61,901	74	45
82	91	CANON	JAPAN	8,631.0[5]	289.5[5]	120	10,394.6[5]	73	3,330.4[5]	69	40,740[5]	121	44
83	99	PECHINEY	FRANCE	8,616.5	336.5	98	13,031.5	55	1,610.2	158	49,000	97	33
84	87	SHARP	JAPAN	8,608.0[5]	146.3[5]	225	13,042.9[5]	54	3,851.1[5]	60	29,351[5]	163	36
85	76	AKZO	NETHERLANDS	8,388.1	426.3	75	6,732.3	125	2,143.0	122	71,100	66	28
86	72	FRIED. KRUPP	W. GERMANY	8,385.4	(153.4)	493	5,621.8	151	749.0	310	63,391	73	33
87	82	NKK	JAPAN	8,276.0[5]	122.4[5]	250	21,270.5[5]	27	4,963.5[5]	133	31,223[5]	151	33
88	97	ALCAN ALUMINIUM	CANADA	8,275.0[5]	931.0	27	8,615.0	92	4,320.0	54	56,000	84	34
89	84	REPSOL	SPAIN	7,951.8	480.3	66	6,400.2	132	2,909.2	87	18,716	258	29
90	77	DALGETY	BRITAIN	7,893.8	140.9	229	2,209.1	355	623.6	351	22,820	219	20
91	•	COSMO OIL	JAPAN	7,860.3	56.3	358	8,765.9	90	495.5	390	4,191	475	29
92	61	SHOWA SHELL SEKIYU	JAPAN	7,744.8[5]	85.8[5]	296	6,009.0[5]	137	522.0[5]	381	2,428[5]	491	29
93	90	SUNKYONG	SOUTH KOREA	7,722.6	138.8	232	4,970.0	171	1,291.9	191	20,572	239	29
94	113	ASAHI GLASS	JAPAN	7,702.1[5]	358.1	93	8,159.8	102	3,604.1	63	16,692	282	28
95	112	SUMITOMO METAL INDUSTRIES	JAPAN	7,675.5	20.7	451	16,606.5	38	2,706.5	95	29,509	161	33
96	96	KOBE STEEL	JAPAN	7,631.9	34.9	419	15,899.5	41	1,604.7	160	25,583	196	33
97	108	ELDERS IXL	AUSTRALIA	7,618.2	555.0	57	7,387.2	114	3,347.4	67	38,000	128	49
98	92	BRITISH COAL	BRITAIN	7,473.1	(919.7)	497	12,224.5	59	(709.3)	497	117,355	37	10
99	109	TAIYO FISHERY	JAPAN	7,410.8	1.0	478	3,507.6	249	258.0	465	8,066	401	20
100	104	KAWASAKI STEEL	JAPAN	7,333.1	62.9	341	14,385.4	48	2,700.6	96	26,909	185	34

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101	95	JAPAN TOBACCO	JAPAN	7,261.7	266.2	139	12,232.4	58	7,866.1	17	28,100	176	21
102	106	MITSUBISHI KASEI	JAPAN	7,157.4	171.6	201	10,025.1	78	1,498.3	172	19,014	252	28
103	107	BSN	FRANCE	7,082.6	367.6	90	6,409.1	131	2,590.8	102	42,234	115	20
104	115	BROKEN HILL PROPRIETARY	AUSTRALIA	7,079.5	710.1	42	15,325.3	42	4,697.6	50	51,000	90	33
105	125	NORANDA	CANADA	7,040.3	488.9	65	9,460.9	82	3,419.7	65	48,000	100	26
106	126	CHRYSLER CANADA	CANADA	7,028.0	103.1	273	2,619.6	317	802.9	299	15,000	304	40
107	136	BRITISH STEEL	BRITAIN	7,009.8	698.3	43	8,406.2	95	6,397.1	27	53,720	87	33
108	122	PIRELLI	ITALY/SWITZERLAND	7,006.4	172.1	200	3,685.0	236	1,992.4	131	71,802	65	30
109	123	SUMITOMO CHEMICAL	JAPAN	7,002.0	304.9	109	7,856.9	107	1,442.3	177	12,340	341	28
110	124	RTZ	BRITAIN	6,974.9	1,392.6	14	8,257.1	99	3,711.9	62	56,591	81	10
111	110	SANDOZ	SWITZERLAND	6,936.9	520.0	62	7,211.1	117	4,009.3	58	48,079	98	42
112	98	SAAB-SCANIA	SWEDEN	6,925.5	254.6	148	6,646.1	127	1,265.0	194	50,000	92	40
113	118	IBM UNITED KINGDOM HOLDINGS	BRITAIN	6,900.6	582.5	53	3,608.0	241	1,593.3	162	18,686	260	44
114	111	SOLVAY	BELGIUM	6,893.4	368.5	88	6,214.0	134	2,004.0	129	44,301	110	28
115	121	ASAHI CHEMICAL INDUSTRY	JAPAN	6,882.4	175.4	197	7,319.3	115	2,178.0	120	22,105	225	22
116	145	SCHNEIDER	FRANCE	6,799.9	94.0	284	10,559.4	71	691.9	323	74,996	62	36
117	93	VEBA OEL	W. GERMANY	6,788.3	98.7	280	2,734.7	304	690.4	325	17,156	277	29
118	114	CHINESE PETROLEUM	TAIWAN	6,706.4	1,942.4	6	8,147.9	103	6,045.7	31	23,328	211	29
119	128	DAI NIPPON PRINTING	JAPAN	6,574.7	234.4	156	6,126.9	135	3,128.5	77	13,470	323	27
120	66	STATOIL	NORWAY	6,554.0	52.1	368	9,137.7	87	651.9	340	11,167	359	29
121	150	BERTELSMANN	W. GERMANY	6,538.9	127.8	244	3,660.4	237	641.5	343	41,961	116	27
122	100	IBM DEUTSCHLAND	W. GERMANY	6,470.8	366.8	91	4,543.2	189	1,643.4	156	30,712	153	44
123	119	OLIVETTI	ITALY	6,458.9	273.6	132	9,002.1	88	2,577.7	103	57,560	79	44
124	129	SNOW BRAND MILK PRODUCTS	JAPAN	6,435.1	38.8	406	2,921.7	289	558.0	370	14,604	307	20
125	147	YPF (YACIMIENTOS PETRÓLIFEROS)	ARGEN.	6,435.0	N.A.		12,164.0	60	8,320.8	15	33,757	140	29
126	134	AÉROSPATIALE	FRANCE	6,417.6	(10.6)	484	8,596.7	93	958.9	255	39,192	122	41
127	105	IBM FRANCE	FRANCE	6,409.0	388.3	84	4,901.4	174	1,776.5	142	21,832	231	44
128	131	SUZUKI MOTOR	JAPAN	6,379.4	76.7	309	4,663.0	185	1,002.1	244	12,897	330	40
129	101	NESTE	FINLAND	6,352.9	318.3	101	6,391.8	133	2,692.2	97	10,855	364	29
130	141	HILLSDOWN HOLDINGS	BRITAIN	6,321.4	368.2	89	2,737.5	302	863.9	283	42,832	114	20
131	116	ISHIKAWAJIMA-HARIMA HEAVY IND.	JAPAN	6,174.7	3.8	474	8,938.4	89	1,001.4	245	26,747	186	45
132	143	TOPPAN PRINTING	JAPAN	6,148.1	164.2	207	5,310.7	159	2,307.4	116	14,200	310	27
133	152	MATSUSHITA ELECTRIC WORKS	JAPAN	6,131.9	185.6	187	5,768.1	149	2,374.2	111	18,153	266	45
134	155	ALLIED-LYONS	BRITAIN	6,037.0	493.1	63	7,654.4	108	3,293.4	71	78,128	57	49
135	153	SSANGYONG	SOUTH KOREA	6,021.2	196.1	181	9,434.4	83	2,019.0	128	18,831	255	29
136	133	FUJI PHOTO FILM	JAPAN	5,987.7	576.2	54	9,209.8	85	5,653.7	38	18,195	265	38
137	135	ROCHE/SAPAC	SWITZERLAND	5,938.8	438.4	73	10,170.2	75	6,707.9	24	49,671	93	42
138	137	HENKEL	W. GERMANY	5,833.0	183.5	191	4,196.4	203	1,493.5	173	35,943	132	28
139	102	ESSO UK	BRITAIN	5,774.7	538.8	59	7,604.4	110	1,845.9	138	4,530	468	29
140	161	SALZGITTER	W. GERMANY	5,634.4	45.0	388	4,511.3	190	931.2	264	38,020	127	33
141	163	MITSUBISHI METAL	JAPAN	5,611.1	45.8	384	5,845.9	145	605.4	356	11,265	357	33
142	207	STORA KOPPARBERGS BERGSLAGS	SWEDEN	5,583.7	180.9	194	8,001.6	105	1,237.3	196	54,014	86	26
143	149	KOÇ HOLDING	TURKEY	5,568.6	304.4	111	1,602.8	410	294.4	453	33,662	141	40
144	154	SUMITOMO ELECTRIC INDUSTRIES	JAPAN	5,556.7	134.4	238	5,971.6	140	1,953.8	135	25,246	200	34
145	184	KIRIN BREWERY	JAPAN	5,550.1	275.1	131	7,876.8	106	2,969.2	83	12,238	342	49
146	169	BASS	BRITAIN	5,436.9	572.7	55	6,944.6	122	4,242.5	55	84,843	52	49
147	146	NORTHERN TELECOM	CANADA	5,407.5	183.2	193	5,878.2	144	2,671.8	98	50,136	91	36
148	151	VIAG	W. GERMANY	5,388.7	114.3	261	5,819.2	147	1,235.4	197	31,427	144	33
149	162	NIPPON MINING	JAPAN	5,375.5	53.1	366	5,552.8	153	780.2	309	7,326	411	29
150	156	TORAY INDUSTRIES	JAPAN	5,362.4	208.7	176	7,107.6	120	2,396.3	109	25,409	198	22

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RANK BY SALES 1988	1987	COMPANY	COUNTRY	SALES $ Millions	PROFITS $ Millions	Rank	ASSETS $ Millions	Rank	STOCKHOLDERS' EQUITY $ Millions	Rank	EMPLOYEES Number	Rank	INDUSTRY CODE
151	223	BULL	FRANCE	5,297.5	50.9	372	4,461.4	192	842.6	290	45,557	106	44
152	167	BICC	BRITAIN	5,249.4	158.5	216	2,752.5	301	555.2	373	44,738	108	34
153	209	NOKIA	FINLAND	5,204.3	276.4	130	5,460.2	155	1,762.4	144	44,600	109	36
154	148	THORN EMI	BRITAIN	5,201.2	210.0	174	3,836.2	226	1,216.2	200	66,630	71	36
155	234	FLETCHER CHALLENGE	NEW ZEALAND	5,135.1	344.2	94	7,569.5	112	2,121.3	124	41,000	118	26
156	176	SIDERBRÁS	BRAZIL	5,120.6	(7,192.8)	498	12,137.8	61	(1,486.9)	498	75,811	59	30
157	158	DSM	NETHERLANDS	5,120.2	314.7	105	4,168.8	205	1,535.5	169	28,625	168	28
158	484	ARBED	LUXEMBOURG	5,112.0	172.6	199	5,172.8	163	1,169.3	213	53,000	88	33
159	139	L.M. ERICSSON	SWEDEN	5,101.4	214.0	171	5,647.5	150	1,407.1	180	65,138	72	36
160	132	IMPERIAL OIL	CANADA	5,050.5	406.2	81	8,112.0	104	4,840.7	46	12,161	343	29
161	138	KOMATSU	JAPAN	5,049.2	89.8	290	8,329.7	98	3,229.7	75	22,901	218	45
162	174	SHOWA DENKO	JAPAN	4,966.7	143.1	228	4,716.2	180	595.4	359	6,143	435	28
163	160	SCHLUMBERGER	NETHERLANDS ANTILLES	4,924.5	476.2	68	5,600.2	152	2,755.0	93	48,000	99	38
164	157	FUJI HEAVY INDUSTRIES	JAPAN	4,923.9	53.4	364	5,051.8	168	1,523.6	170	15,698	296	40
165	144	CEA-INDUSTRIE	FRANCE	4,904.5	233.2	157	15,321.4	43	1,826.0	139	30,100	159	28
166	164	KUBOTA	JAPAN	4,889.1	133.0	240	5,911.5	142	2,452.9	108	17,500	270	45
167	177	RICOH	JAPAN	4,869.1	123.0	249	5,161.2	164	2,348.8	114	30,500	155	44
168	142	KAWASAKI HEAVY INDUSTRIES	JAPAN	4,862.2	66.6	334	7,605.3	109	663.4	332	19,236	250	37
169	130	ESSO	W. GERMANY	4,856.8	71.4	323	2,169.0	358	753.1	308	2,221	494	29
170	170	COCKERILL SAMBRE	BELGIUM	4,752.6	195.3	182	3,918.9	221	941.5	259	26,306	189	33
171	166	HOESCH	W. GERMANY	4,748.2	37.9	407	3,686.4	235	931.0	265	33,800	139	33
172	274	HÜLS	W. GERMANY	4,695.0	73.2	317	3,144.9	274	855.7	286	27,167	183	28
173	172	DAIHATSU MOTOR	JAPAN	4,652.0	43.5	395	3,423.5	254	810.5	297	18,674	261	40
174	191	HYUNDAI MOTOR	SOUTH KOREA	4,642.5	57.7	355	3,560.2	246	659.7	335	34,000	126	40
175	180	TAKEDA CHEMICAL	JAPAN	4,574.6	273.4	134	6,763.8	124	3,337.7	68	13,854	314	42
176	182	FURUKAWA ELECTRIC	JAPAN	4,563.8	103.9	271	5,085.6	166	1,024.2	239	15,259	300	33
177	179	TOYO SEIKAN	JAPAN	4,548.4	161.4	211	3,805.7	229	1,631.0	157	6,107	436	34
178	159	TOA NENRYO KOGYO	JAPAN	4,543.8	273.5	133	5,048.7	169	2,778.8	92	2,286	493	29
179	242	CONTINENTAL	W. GERMANY	4,498.3	112.9	263	3,075.8	278	863.6	284	45,907	105	30
180	127	FELDMÜHLE NOBEL	W. GERMANY	4,495.8	84.4	299	3,242.7	266	1,004.6	243	33,469	143	26
181	245	DAINIPPON INK & CHEMICALS	JAPAN	4,487.8	47.9	380	5,440.6	157	966.6	252	18,694	259	27
182	187	NEWS CORP.	AUSTRALIA	4,383.9	343.6	96	11,004.9	70	4,022.8	56	28,305	173	27
183	165	JACOBS SUCHARD	SWITZERLAND	4,361.6	234.7	155	3,049.1	282	1,318.1	188	16,799	280	20
184	173	L'AIR LIQUIDE	FRANCE	4,303.5	266.0	140	5,264.0	160	1,756.0	146	27,000	184	28
185	200	CADBURY SCHWEPPES	BRITAIN	4,242.3	300.9	113	2,808.2	297	878.9	277	28,874	166	49
186	178	HACI ÖMER SABANCI HOLDING	TURKEY	4,241.7	259.0	143	3,882.4	222	453.7	408	31,372	148	22
187	168	BEECHAM GROUP	BRITAIN	4,223.9	407.7	80	4,772.7	177	2,813.7	91	35,800	133	42
188	189	KANEBO	JAPAN	4,202.9	(19.0)	486	4,810.8	176	91.8	492	24,967	203	22
189	194	STC	BRITAIN	4,198.1	265.2	142	2,960.0	286	1,291.8	192	33,848	137	44
190	206	HYOSUNG	SOUTH KOREA	4,182.8	39.2	404	3,096.5	277	898.0	273	24,500	207	22
191	217	DE BEERS CONSOLIDATED MINES	S. AFRICA	4,168.6	1,431.0	12	6,685.1	126	5,560.1	39	23,117	214	10
192	188	CRA	AUSTRALIA	4,165.0	471.5	69	6,469.9	130	2,964.3	84	21,834	230	34
193	195	COURTAULDS	BRITAIN	4,123.5	244.2	150	3,058.0	280	1,158.5	214	68,500	67	28
194	199	L'ORÉAL	FRANCE	4,104.9	225.9	163	3,471.4	251	1,187.4	208	27,570	180	43
195	238	HACHETTE	FRANCE	4,098.0	55.0	361	3,603.0	242	365.6	435	28,500	171	27
196	190	RANK XEROX	BRITAIN	4,097.5	276.6	128	4,364.8	197	2,124.6	123	30,699	154	44
197	193	ALUSUISSE	SWITZERLAND	4,085.2	213.9	172	3,954.7	218	951.4	257	24,467	208	34
198	117	TÜRKIYE PETROLLERI	TURKEY	4,035.0	297.6	115	3,288.0	260	1,211.5	205	19,891	246	29
199	197	FUJI ELECTRIC	JAPAN	4,028.6	47.6	382	5,181.7	162	960.5	254	17,496	271	36
200	204	OJI PAPER	JAPAN	4,006.6	126.1	245	4,742.3	178	1,475.0	174	5,454	454	26

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RANK BY SALES 1988	RANK BY SALES 1987	COMPANY	COUNTRY	SALES $ Millions	PROFITS $ Millions	PROFITS Rank	ASSETS $ Millions	ASSETS Rank	STOCKHOLDERS' EQUITY $ Millions	STOCKHOLDERS' EQUITY Rank	EMPLOYEES Number	EMPLOYEES Rank	INDUSTRY CODE
201	171	OIL & NATURAL GAS COMMISSION [2]	INDIA	4,002.4[7]	1,180.7[7]	17	9,169.6[7]	86	4,699.3[7]	49	43,000[7]	112	29
202	235	HOOGOVENS GROEP	NETHERLANDS	3,980.4	152.2	221	4,510.3	191	966.8	251	28,308	172	33
203	213	PILKINGTON [3,17]	BRITAIN	3,973.1	297.7	114	4,405.7	194	1,550.1	168	56,700	80	32
204	201	TEIJIN [3]	JAPAN	3,891.9	144.8	226	5,819.7	146	1,721.9	148	11,220	358	28
205	203	ASSOCIATED BRITISH FOODS [4]	BRITAIN	3,869.4	185.5	188	3,808.3	228	2,889.4	88	34,638	135	20
206	•	GOLD STAR [18]	SOUTH KOREA	3,857.8	24.8	443	3,242.0	267	589.8	363	36,442	131	36
207	224	UNITED BISCUITS (HOLDINGS)	BRITAIN	3,856.8	291.2	119	2,319.4	348	928.7	266	47,004	104	20
208	212	UBE INDUSTRIES [3]	JAPAN	3,848.1	139.9	230	6,500.1	129	379.2	429	12,578	335	32
209	205	NIPPON SUISAN KAISHA [3]	JAPAN	3,838.9	29.4	431	2,333.9	345	610.3	354	6,242	431[7]	20
210	246	SEKISUI CHEMICAL [3]	JAPAN	3,836.1	101.7	276	3,700.8	233	1,124.1	221	8,135	398	28
211	211	LAFARGE COPPÉE	FRANCE	3,809.2	315.7	104	4,246.5	201	1,438.0	178	22,491	222	32
212	227	NIPPON MEAT PACKERS [3]	JAPAN	3,799.8	72.3	320	2,372.9	340	934.4	263	13,232	326	20
213	220	AISIN SEIKI [3]	JAPAN	3,788.8	72.1	321	2,762.4	299	1,214.5	201	12,427	339	40
214	219	BOC GROUP [4]	BRITAIN	3,756.5	321.7	100	4,086.0	209	1,657.3	154	38,813	125	28
215	210	MITSUBISHI OIL [3]	JAPAN	3,755.1	56.1	359	4,225.1	202	259.5	462	3,385	482	29
216	250	STEEL AUTHORITY OF INDIA [2,4]	INDIA	3,722.0	48.9	377	5,896.3	143	3,115.2	79	201,415	11	33
217	232	KAO [3]	JAPAN	3,719.1	96.2	281	3,630.9	239	1,697.8	152	11,000	360	43
218	259	TATE & LYLE [4]	BRITAIN	3,701.2	124.4	248	2,958.7	287	664.7	330	17,000	279	20
219	215	SULZER BROTHERS	SWITZERLAND	3,701.1	49.5	376	5,027.3	170	1,356.2	185	33,800	138	45
220	229	UNIGATE [3]	BRITAIN	3,686.5	120.9	251	1,588.6	412	626.3	349	34,922	134	20
221	230	RMC GROUP	BRITAIN	3,678.3	199.5	178	2,332.4	347	822.5	293	23,267	212	32
222	251	VAUXHALL MOTORS	BRITAIN	3,648.9	270.6	135	1,298.5	452	146.3	484	10,660	366	40
223	208	PETRONAS [2,3]	MALAYSIA	3,633.0	886.8	31	8,516.7	94	5,753.3	36	7,292	413	29
224	198	ORKEM [2,19]	FRANCE	3,616.9	418.2	78	2,710.1	309	890.4	275	13,500	321	28
225	258	GLAXO HOLDINGS [4]	BRITAIN	3,609.4	1,018.5	22	4,898.3	175	3,048.0	81	26,423	188	42
226	226	YAMAHA MOTOR [3]	JAPAN	3,609.1	58.0	352	3,512.5	248	465.0	407	9,836	377	40
227	225	HYUNDAI HEAVY INDUSTRIES	SOUTH KOREA	3,608.2	59.4	347	4,031.1	214	1,028.8	238	49,300	95	37
228	248	ÖMV [2]	AUSTRIA	3,565.2	27.5	434	3,564.5	245	1,115.2	223	9,352	384	29
229	247	JOHN LABATT [16]	CANADA	3,539.9	107.9	265	2,064.8	370	705.9	320	17,900	268	20
230	214	GKN	BRITAIN	3,539.4	162.5	210	2,805.5	298	1,117.3	222	37,122	129	40
231	175	PETRO-CANADA [2]	CANADA	3,516.5	84.3	300	7,219.1	116	3,282.2	72	7,373	410	29
232	196	ROLLS-ROYCE	BRITAIN	3,514.4	258.3	144	3,222.7	269	1,716.3	149	40,900	119	41
233	290	TRELLEBORG	SWEDEN	3,508.2	153.1	220	3,872.1	223	547.9	375	28,083	177	33
234	222	AJINOMOTO [3]	JAPAN	3,495.1	119.9	254	4,934.4	172	2,475.5	106	9,543	381	20
235	311	NOBEL INDUSTRIES	SWEDEN	3,476.5	106.5	269	5,144.5	165	653.5	338	22,101	226	28
236	218	SKF	SWEDEN	3,463.4	161.2	212	3,976.0	216	1,560.1	166	47,178	103	34
237	331	SUMITOMO RUBBER	JAPAN	3,455.5	39.8	401	3,288.7	259	302.4	451	20,000	244	30
238	192	GUINNESS	BRITAIN	3,436.1	637.7	48	8,617.5	91	5,161.5	43	17,934	267	49
239	•	VOEST-ALPINE STAHL [2]	AUSTRIA	3,433.1	72.4	319	624.0	492	369.7	432	31,273	150	33
240	231	REED INTERNATIONAL [3]	BRITAIN	3,424.0	492.4	64	3,527.4	247	1,867.1	137	31,300	149	27
241	280	SVENSKA CELLULOSA	SWEDEN	3,398.5	237.5	153	4,703.3	183	1,360.1	184	21,315	233	43
242	261	YAMAHA [3,20]	JAPAN	3,376.2	60.0	345	3,195.5	270	1,131.4	218	17,035	278	47
243	236	TOYOBO [3]	JAPAN	3,363.6	45.6	386	3,694.1	234	662.8	334	15,077	303	28
244	257	JUJO PAPER [3]	JAPAN	3,349.6[6]	87.3[6]	294	4,045.9[6]	213	745.9[6]	312	6,883[6]	418	26
245	252	DEUTSCHE TEXACO	W. GERMANY	3,333.3	64.2	336	1,758.4	396	487.8	396	4,359	471	29
246	241	HAWKER SIDDELEY GROUP	BRITAIN	3,327.4	217.0	169	2,970.6	285	1,411.4	179	42,900	113	45
247	228	COATS VIYELLA	BRITAIN	3,303.9	88.5	292	2,592.5	318	1,211.5	204	67,420	69	22
248	270	OKI ELECTRIC INDUSTRY [3]	JAPAN	3,263.1[6]	25.1[6]	442	4,132.4[6]	207	957.3[6]	256	18,659[6]	262	36
249	366	INCO	CANADA	3,263.1	735.4	41	4,078.8	211	767.3	306	18,658	263	10
250	266	NIPPON LIGHT METAL [3]	JAPAN	3,255.6	29.4	430	3,374.5	255	141.4	486	10,500	368	32

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RANK BY SALES 1988	1987	COMPANY	COUNTRY	SALES $ Millions	PROFITS $ Millions	Rank	ASSETS $ Millions	Rank	STOCK-HOLDERS' EQUITY $ Millions	Rank	EMPLOYEES Number	Rank	INDUSTRY CODE *
251	240	MATRA	FRANCE	3,246.0	57.0	356	4,269.9	200	379.7	428	19,479	248	41
252	281	HINO MOTORS [3]	JAPAN	3,241.8[e]	28.5[e]	432	1,978.1[e]	379	662.9[e]	333	8,095[e]	399	40
253	239	GALLAHER	BRITAIN	3,240.2	269.0	137	2,446.4	334	831.9	291	31,918	146	21
254	268	LUCAS INDUSTRIES [21]	BRITAIN	3,228.1	161.1	213	2,456.1	331	1,130.5	219	59,047	76	40
255	256	TDK [9]	JAPAN	3,221.1	173.3	198	4,077.5	212	2,303.7	117	19,646	247	36
256	271	YAMAZAKI BAKING	JAPAN	3,200.9[e]	70.2[e]	326	2,111.1[e]	363	1,036.1[e]	236	15,919[e]	294	20
257	375	NOVA	CANADA	3,195.4[1]	343.8	95	6,909.8	123	1,710.3	150	13,000	328	28
258	•	MO OCH DOMSJO	SWEDEN	3,191.2	37.2	409	4,305.7	199	427.2	414	16,714	281	26
259	255	KONICA [22]	JAPAN	3,175.7	12.7	468	3,843.0	225	1,372.1	183	22,000	228	38
260	277	AVIONS MARCEL DASSAULT	FRANCE	3,160.2	63.8	338	5,923.3	141	494.1	391	16,327	285	41
261	263	MITSUI TOATSU CHEMICALS [3]	JAPAN	3,156.9	53.6	363	4,706.9	182	400.8	421	11,000	361	28
262	318	CODELCO-CHILE [2]	CHILE	3,153.0	587.3	52	4,715.1	181	2,379.2	110	25,468	197	10
263	221	CEPSA (ESPAÑOLA DE PETRÓLEOS)	SPAIN	3,118.3	106.7	268	1,773.8	391	889.7	276	5,697	444	29
264	284	TEXACO	BRITAIN	3,114.3	0.5	480	1,528.7	422	655.2	337	3,358	484	29
265	286	PIONEER ELECTRONIC [4]	JAPAN	3,089.8	137.2	234	2,369.6	341	1,342.4	186	12,942	329	36
266	249	HEINEKEN	NETHERLANDS	3,087.9[5]	147.1	224	3,266.6	263	1,384.7	182	28,719	167	49
267	434	REDLAND	BRITAIN	3,079.5	286.1	122	2,512.0	326	1,113.1	226	20,029	243	32
268	298	MITSUBISHI PETROCHEMICAL	JAPAN	3,068.0	198.1	180	4,321.7	198	1,000.1	246	3,793	478	28
269	260	GENERAL SEKIYU [3]	JAPAN	3,055.2	57.9	353	2,522.8	323	687.7	326	1,750	498	29
270	275	SHISEIDO [9]	JAPAN	3,045.6	73.3	316	4,108.3	208	2,003.0	130	18,902	254	43
271	243	NIXDORF COMPUTER	W. GERMANY	3,042.3	16.4	460	2,726.7	306	1,592.3	163	31,037	152	44
272	310	GENERAL MOTORS ESPAÑA	SPAIN	3,023.1	239.5	152	1,471.6	431	501.0	388	9,763	378	40
273	264	SCHERING	W. GERMANY	2,999.7	89.4	291	3,158.6	273	1,142.6	216	24,685	206	28
274	296	IBM CANADA	CANADA	2,994.3	210.8	173	2,495.0	327	1,582.8	164	12,605	334	44
275	216	SAARBERGWERKE [2]	W. GERMANY	2,972.4	(48.2)	491	2,563.8	320	180.3	477	24,977	202	29
276	278	HONSHU PAPER [3]	JAPAN	2,967.5	26.8	437	4,567.4	188	332.6	443	7,703	407	26
277	265	DEUTSCHE BABCOCK [4]	W. GERMANY	2,960.6	22.4	446	1,401.0	443	395.1	423	22,451	223	34
278	293	RANKS HOVIS MCDOUGALL [23]	BRITAIN	2,951.9	143.6	227	2,736.6	303	1,561.7	165	38,195	126	20
279	373	ASAHI BREWERIES	JAPAN	2,932.1	33.3	424	5,977.7	139	1,099.3	230	5,222	432	49
280	269	PROCORDIA [2]	SWEDEN	2,925.3	316.5	103	2,898.9	290	1,136.0	217	29,111	165	42
281	297	SANYO-KOKUSAKU PULP [3]	JAPAN	2,902.3	69.7	328	3,162.2	272	677.6	328	7,436	408	26
282	273	SNECMA [7]	FRANCE	2,901.2	(4.5)	483	4,371.3	195	271.9	461	25,399	199	41
283	285	SANKYO [3]	JAPAN	2,892.9	84.9	297	2,849.8	293	1,305.1	189	9,234	386	42
284	•	HONAM OIL REFINERY [18]	SOUTH KOREA	2,867.2	36.2	412	1,593.0	411	290.7	455	1,881	497	29
285	237	NISSAN SHATAI [3]	JAPAN	2,836.6[e]	14.4[e]	465	1,109.4[e]	470	485.7[e]	398	5,533[e]	449	40
286	412	BHARAT PETROLEUM [12]	INDIA	2,822.3	58.7	349	820.1	481	258.4	464	10,203	372	29
287	288	SEAGRAM [11]	CANADA	2,798.8	521.1	61	7,543.5	113	4,457.5	52	13,400	324	49
288	295	MEIJI MILK PRODUCTS [3]	JAPAN	2,792.0	20.9	450	1,288.7	454	409.1	418	7,408	409	20
289	332	TOYO SASH [4]	JAPAN	2,776.7	139.3	251	2,655.8	313	1,008.4	242	4,709	465	34
290	320	VALEO	FRANCE	2,766.9	137.2	233	2,258.7	353	830.9	292	29,400	162	40
291	•	BOND CORP. HOLDINGS [1]	AUSTRALIA	2,757.4	199.2	179	7,162.7	119	708.1	319	10,408	370	49
292	313	DAIDO STEEL [3]	JAPAN	2,754.9[5]	34.8	420	2,884.8	292	544.4	376	10,570	367	33
293	279	HOLDERBANK FINANCIÈRE GLARIS	SWITZ.	2,739.4[5]	154.6	219	5,389.5	158	1,873.6	136	23,063	216	32
294	303	ZAHNRADFABRIK FRIEDRICHSHAFEN	W. GER.	2,715.5	48.8	378	2,119.3	361	372.0	431	25,683	194	40
295	294	FORD ESPAÑA [9]	SPAIN	2,708.1[5]	256.7[5]	145	1,573.2	415	176.6	478	9,548	380	40
296	305	NISSHIN STEEL [3]	JAPAN	2,698.2	99.7	279	4,148.5	206	976.3	250	8,557	393	33
297	289	ENTREPRISE MINIÈRE & CHIMIQUE [1]	FRANCE	2,686.8	12.5	469	1,547.6	420	147.3	483	13,136	327	28
298	272	OERLIKON-BÜHRLE	SWITZERLAND	2,679.9	24.5	444	5,655.4	149	2,244.7	119	27,763	179	45
299	304	ABITIBI-PRICE	CANADA	2,679.3	154.9	218	2,205.4	356	1,113.2	225	16,200	289	26
300	324	SANDVIK	SWEDEN	2,675.3	209.8	175	3,368.0	256	842.9	289	26,501	187	34

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301	300	ALPS ELECTRIC	JAPAN	2,671.5	59.1	348	3,074.3	279	1,037.2	235	14,199	311	36
302	334	TOYODA AUTOMATIC LOOM WORKS	JAPAN	2,659.2	75.8	311	1,995.6	376	1,170.7	212	6,697	424	40
303	326	ONODA CEMENT	JAPAN	2,641.9	72.5	318	3,722.0	231	664.5	331	6,890	417	32
304	262	KOOR INDUSTRIES	ISRAEL	2,638.7	(232.8)	494	3,097.3	276	315.6	447	26,000	191	36
305	353	DAF	NETHERLANDS	2,631.2	74.4	314	1,742.8	398	584.0	364	16,491	283	40
306	308	LVMH	FRANCE	2,629.4	336.4	99	4,671.9	184	1,608.9	159	12,355	340	49
307	325	ITOHAM FOODS	JAPAN	2,617.0	43.0	397	1,462.5	433	768.0	305	6,852	419	20
308	291	HINDUSTAN PETROLEUM	INDIA	2,614.6	78.4	306	1,009.0	475	255.4	466	8,710	390	29
309	381	PACIFIC DUNLOP	AUSTRALIA	2,607.1	(29.3)	487	2,073.9	369	712.6	317	36,605	130	30
310	233	MOBIL OIL	W. GERMANY	2,591.5	51.8	359	1,129.2	468	346.1	440	2,140	496	29
311	282	TABACALERA	SPAIN	2,570.6	83.9	302	1,447.2	435	425.6	415	8,492	394	21
312	244	ESSO	FRANCE	2,569.1	20.2	453	1,305.9	451	448.0	410	3,538	480	29
313	329	KHD	W. GERMANY	2,566.5	(41.9)	488	2,110.5	364	252.9	467	18,751	256	45
314	328	YOKOHAMA RUBBER	JAPAN	2,555.0	44.3	391	2,512.3	325	392.7	425	10,751	365	30
315	302	MOORE	CANADA	2,544.0	186.0	186	1,847.6	389	1,292.4	190	25,943	193	27
316	401	PIONEER INTERNATIONAL	AUSTRALIA	2,497.0	120.9	252	2,579.1	319	1,022.8	241	9,200	388	29
317	283	RECKITT & COLMAN	BRITAIN	2,483.2	227.9	161	1,735.7	399	940.1	261	21,700	232	43
318	312	NISSHIN FLOUR MILLING	JAPAN	2,476.2	44.7	389	1,492.7	428	628.2	346	3,505	481	20
319	426	KYMMENE	FINLAND	2,474.9	399.0	82	4,370.2	196	1,757.6	145	16,287	287	26
320	•	BOWATER INDUSTRIES	BRITAIN	2,469.4	101.0	277	1,607.4	409	591.9	361	20,300	241	26
321	306	CANADA PACKERS	CANADA	2,459.3	28.4	433	660.0	491	321.6	444	12,000	348	20
322	341	BURMAH OIL	BRITAIN	2,433.0	162.8	209	1,690.4	403	742.6	313	10,919	363	29
323	267	KF INDUSTRI	SWEDEN	2,432.3	70.7	324	1,772.7	393	363.5	436	12,858	331	45
324	402	DOFASCO	CANADA	2,418.2	180.0	195	4,084.7	210	1,777.3	141	22,800	220	33
325	322	KLÖCKNER-WERKE	W. GERMANY	2,408.4	0.2	481	2,474.5	329	276.0	460	22,061	227	33
326	327	HERAEUS HOLDING	W. GERMANY	2,405.6	25.6	441	1,174.8	465	494.0	392	9,067	389	33
327	254	ESSO ITALIANA	ITALY	2,404.6	18.4	455	1,272.2	457	106.3	490	2,318	492	29
328	356	SOURCE PERRIER	FRANCE	2,403.7	179.8	196	2,368.0	342	375.9	430	11,000	362	49
329	337	UNITIKA	JAPAN	2,392.1	14.7	463	2,644.0	315	192.0	476	6,674	425	22
330	346	MORINAGA MILK INDUSTRY	JAPAN	2,384.2	20.7	452	1,392.8	445	391.1	427	5,110	458	20
331	450	SABIC	SAUDI ARABIA	2,369.9	982.7	24	7,197.7	118	2,861.3	89	8,416	395	28
332	315	BOEHRINGER INGELHEIM	W. GERMANY	2,361.9	41.0	400	2,664.2	312	1,022.8	240	22,206	224	42
333	202	MCDERMOTT INTERNATIONAL	PANAMA	2,351.7	(261.8)	495	3,824.8	227	741.2	314	26,000	192	45
334	333	ESSELTE	SWEDEN	2,347.8	134.3	239	1,906.8	384	297.6	452	19,310	249	44
335	301	COAL INDIA	INDIA	2,341.6	N.A.		5,243.7	161	2,828.9	90	670,000	1	10
336	359	ENSO-GUTZEIT	FINLAND	2,337.2	235.9	154	3,944.0	220	1,108.3	227	17,163	275	26
337	348	RACAL ELECTRONICS	BRITAIN	2,327.7	150.1	223	2,520.7	324	865.4	282	31,910	147	36
338	364	KANTO AUTO WORKS	JAPAN	2,320.5	17.8	457	684.8	489	194.9	475	5,761	442	40
339	354	WHITBREAD	BRITAIN	2,318.7	218.3	168	3,594.2	243	1,991.6	132	49,174	96	49
340	342	RAUMA-REPOLA	FINLAND	2,318.4	166.2	205	3,573.9	244	940.9	260	18,547	264	26
341	•	OUTOKUMPU	FINLAND	2,315.1	38.9	405	2,837.6	294	312.3	448	13,832	316	33
342	351	ISCOR	SOUTH AFRICA	2,314.0	119.4	256	2,533.1	322	1,753.5	147	54,525	85	33
343	314	LION	JAPAN	2,306.1	18.5	454	1,770.6	394	631.8	345	5,093	459	43
344	321	SSAB SVENSKT STÅL	SWEDEN	2,298.9	26.4	439	2,161.3	359	544.1	377	12,801	333	33
345	422	ZAMBIA INDUSTRIAL & MINING	ZAMBIA	2,285.9	157.2	217	4,193.6	204	1,102.8	229	140,408	26	10
346	362	MITSUI MINING & SMELTING	JAPAN	2,284.0	30.7	428	2,829.4	295	136.1	487	6,714	422	33
347	379	OMRON TATEISI ELECTRONICS	JAPAN	2,281.8	78.1	307	2,647.1	314	1,227.0	199	13,851	315	36
348	407	TOTO	JAPAN	2,280.0	107.5	266	2,266.1	352	1,045.5	234	8,570	392	32
349	352	DAISHOWA PAPER	JAPAN	2,276.1	73.8	315	3,948.2	219	400.3	422	5,275	456	26
350	317	PLESSEY	BRITAIN	2,215.5	223.3	165	2,436.6	335	1,174.3	211	30,138	157	36

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351	377	WELLCOME [23]	BRITAIN	2,212.2	224.9	164	2,113.2	362	1,098.0	231	20,236	242	42
352	307	ROTHMANS INTERNATIONAL [3]	BRITAIN	2,210.2	228.2	160	3,181.6	271	1,197.7	206	13,991	313	21
353	343	KEMIRA [2]	FINLAND	2,201.0	117.0	259	3,045.7	283	702.0	321	14,857	305	28
354	349	STELCO	CANADA	2,198.5	78.5	305	2,394.3	337	988.4	248	16,207	288	33
355	339	UNION INTERNATIONAL	BRITAIN	2,196.8	31.7	427	1,270.2	458	349.2	438	23,161	213	20
356	345	DOMTAR	CANADA	2,191.6	90.0	289	2,671.0	311	1,069.8	233	16,053	291	26
357	368	NICHIRO GYOGYO KAISHA [4]	JAPAN	2,177.5	10.2	470	1,277.4	456	100.2	491	2,855	488	20
358	363	MITSUBISHI MINING & CEMENT [3]	JAPAN	2,174.7	35.5	415	2,893.8	291	556.1	372	6,459	428	32
359	378	KYOCERA [3]	JAPAN	2,171.8	163.9	208	3,632.0	238	2,662.0	100	19,000	253	36
360	323	SHIN-ETSU CHEMICAL [1]	JAPAN	2,157.6	106.8	267	3,235.1	268	1,087.3	232	10,074	374	28
361	383	NIPPON SEIKO [16]	JAPAN	2,155.7	44.1	393	3,254.5	265	1,290.4	193	11,572	355	45
362	417	PEARSON	BRITAIN	2,127.9	313.0	106	2,377.6	339	849.1	288	26,017	190	27
363	292	HITACHI ZOSEN [1]	JAPAN	2,123.7	68.1	330	4,655.5	186	492.4	393	5,596	446	45
364	358	JOHNSON MATTHEY [2]	BRITAIN	2,117.4	75.3	312	940.6	476	482.0	401	6,940	416	33
365	384	AMCOR [1]	AUSTRALIA	2,112.3	109.4	264	1,965.8	380	869.3	281	16,000	293	26
366	387	METAL BOX [3]	BRITAIN	2,110.6	100.0	278	1,636.9	405	602.5	358	28,188	174	34
367	347	MINOLTA CAMERA [1]	JAPAN	2,104.7[e]	18.0[e]	456	2,542.0[e]	321	723.6[e]	315	12,490[e]	336	38
368	360	TOYOTA AUTO BODY [1]	JAPAN	2,090.4[e]	16.2[e]	461	761.1[e]	485	235.3[e]	469	6,787[e]	420	40
369	361	ATLAS COPCO	SWEDEN	2,088.3	103.2	272	1,945.7	382	690.9	324	19,207	251	45
370	355	MEIJI SEIKA [1]	JAPAN	2,070.4	21.7	449	1,476.3	430	812.0	295	5,465	453	20
371	336	SUMITOMO HEAVY INDUSTRIES [1]	JAPAN	2,062.8	3.2	475	3,460.6	252	496.4	389	6,000	440	45
372	460	COOKSON GROUP	BRITAIN	2,055.9	184.2	189	1,984.6	378	901.7	272	14,351	309	33
373	388	MITSUBISHI RAYON [3]	JAPAN	2,051.9	36.4	411	2,728.1	305	697.7	322	7,237	415	28
374	389	KURARAY [1]	JAPAN	2,032.9	26.4	440	2,452.9	333	404.4	420	7,237	414	22
375	397	VALMET [2]	FINLAND	2,031.7	0.7	479	2,050.0	371	614.0	352	17,405	273	45
376	380	LINDE	W. GERMANY	2,027.6	69.9	327	1,580.2	413	627.9	347	15,890	295	45
377	399	INDÚSTRIAS VOTORANTIM	BRAZIL	2,027.0	686.4	44	1,990.0	377	1,558.8	167	56,000	83	10
378	415	BORAL [1]	AUSTRALIA	2,022.8	171.6	202	2,108.9	365	918.4	269	21,000	237	32
379	371	ALFA-LAVAL	SWEDEN	2,021.4[1]	120.1	253	2,357.4	344	487.8	395	17,156	276	45
380	367	FREUDENBERG	W. GERMANY	2,011.2[1]	81.2	303	1,573.9	414	592.7	360	23,500	210	40
381	436	MAXWELL COMMUNICATION	BRITAIN	2,010.2	241.5	151	N.A.		1,808.5[f]	140	30,000	160	27
382	374	BLUE CIRCLE INDUSTRIES	BRITAIN	2,003.9	256.0	146	3,336.1	258	1,603.8	161	16,303	286	32
383	396	SHIONOGI [3]	JAPAN	1,999.2	84.3	301	2,333.7	346	1,231.4	198	8,181	397	42
384	382	KYOWA HAKKO KOGYO	JAPAN	1,995.4	104.1	270	2,757.2	300	991.8	247	6,000	439	42
385	365	FAG KUGEL. G. SCHÄFER	W. GERMANY	1,992.5	34.9	417	1,936.2	383	553.0	374	30,218	156	34
386	430	DOOSAN	SOUTH KOREA	1,963.6	32.5	426	2,083.2	368	492.3	394	15,175	302	49
387	299	VALE DO RIO DOCE [1]	BRAZIL	1,963.4	607.1	51	5,992.5	138	2,667.9	99	28,501	169	10
388	372	PERNOD RICARD	FRANCE	1,961.5	125.1	247	2,367.7	343	773.3	303	10,009	375	49
389	420	DOUWE EGBERTS [1]	NETHERLANDS	1,957.0	118.1	257	1,195.5	462	142.7	485	11,741	353	20
390	462	VARITY [11]	CANADA	1,948.9	4.5	473	1,623.4	407	438.1	413	16,330	284	45
391	392	PWA	W. GERMANY	1,947.6	45.6	385	1,263.2	459	317.7	445	10,402	371	26
392	395	CITIZEN WATCH [3]	JAPAN	1,929.0	37.1	410	2,017.3	373	807.6	298	12,468	338	38
393	370	WESSANEN	NETHERLANDS	1,925.5	46.8	383	557.6	495	292.9	454	6,571	427	20
394	386	CONSOLIDATED-BATHURST	CANADA	1,923.3	194.3	183	1,955.5	381	873.8	278	14,623	306	26
395	385	ULTRAMAR	BRITAIN	1,918.8	102.2	275	3,473.9	250	1,444.8	176	3,878	477	29
396	398	JAGUAR	BRITAIN	1,915.8	50.6	373	1,296.5	453	507.8	386	12,835	332	40
397	411	MITSUI PETROCHEMICAL [1]	JAPAN	1,913.2	63.1	340	3,276.5	261	683.7	327	4,938	463	28
398	486	PROCTER & GAMBLE [1]	W. GERMANY	1,905.9	43.8	394	934.2	477	206.0	472	6,700	423	43
399	330	CSR [3]	AUSTRALIA	1,904.3	132.4	241	3,274.8	262	1,514.8	171	16,133	290	32
400	376	MITSUI MINING [1]	JAPAN	1,899.9	13.8	466	2,305.1	349	123.6	488	2,146	495	10

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401	458	NISSAN DIESEL MOTOR [3]	JAPAN	1,883.9[a]	2.1[c]	476	2,233.2[a]	354	406.0[a]	419	5,404[a]	455	40
402	338	TEXACO CANADA	CANADA	1,882.7	270.0	136	3,434.8	253	1,668.3	153	3,236	486	29
403	403	CARL-ZEISS-STIFTUNG [4]	W. GERMANY	1,871.4	24.4	445	1,515.2	426	286.1	458	24,910	204	38
404	429	NIHON CEMENT [3]	JAPAN	1,869.1[c]	70.4[c]	325	3,052.4	281	665.0	329	5,080	460	32
405	413	T&N	BRITAIN	1,868.2	125.4	246	1,524.0	424	709.7	318	40,859	120	40
406	449	FORD MOTOR	AUSTRALIA	1,862.7	74.5	313	1,067.2	473	417.6	417	11,938	350	40
407	425	MITSUBISHI GAS CHEMICAL [3]	JAPAN	1,857.0	37.6	408	2,379.7	338	784.5	301	5,569	447	28
408	394	E. MERCK	W. GERMANY	1,854.1[c]	92.8	285	1,718.1	400	748.2	311	21,017	236	28
409	421	YOSHIDA KOGYO [3]	JAPAN	1,852.4	114.1	262	3,851.8	224	1,175.3	210	15,327	299	32
410	393	RHEINMETALL BERLIN	W. GERMANY	1,850.3	44.7	390	1,238.3	460	315.9	446	15,465	297	34
411	455	NAN YA PLASTICS	TAIWAN	1,840.4	134.8	236	1,525.0	423	626.4	348	13,679	317	28
412	423	GRUNDIG [3]	W. GERMANY	1,832.3	65.6	335	1,334.2	450	482.9	400	18,748	257	36
413	410	NTN TOYO BEARING [25]	JAPAN	1,831.8	39.8	402	2,704.7	310	918.1	270	10,475	369	45
414	428	RENCO [3]	JAPAN	1,831.6[a]	16.7[a]	458	1,386.0[a]	446	311.9[a]	449	4,434[a]	469	26
415	424	SAPPORO BREWERIES	JAPAN	1,826.7	49.6	375	3,969.6	217	943.9	258	4,543	467	49
416	408	UNION LAITIÈRE NORMANDE	FRANCE	1,823.8	15.5	462	677.9	490	84.0	493	5,690	445	20
417	400	IVACO	CANADA	1,814.9	34.0	422	1,556.4	419	485.3	399	12,000	349	33
418	390	DAIKIN INDUSTRIES [3]	JAPAN	1,813.3[a,f]	35.6[a,f]	414	1,629.8[a]	406	505.7[a]	387	8,000[a]	402	45
419	457	GRUPO INDUSTRIAL ALFA	MEXICO	1,812.9	636.6	49	3,354.2	257	1,213.5	203	29,182	164	33
420	409	METSÄ-SERLA	FINLAND	1,812.0	159.8	215	2,719.2	307	798.0	300	12,116	344	26
421	443	EBARA [3]	JAPAN	1,803.5[a,f]	52.7[a,f]	367	2,021.0[a]	372	647.4[a]	341	5,884[a]	441	45
422	•	BBA GROUP	BRITAIN	1,802.5	78.9	304	1,401.0	442	452.3	409	24,828	205	40
423	•	SIEBE [3]	BRITAIN	1,799.7	117.4	258	1,897.1	385	765.8	307	28,169	175	36
424	496	GENERAL MOTORS DO BRASIL	BRAZIL	1,798.5	284.5	123	1,442.3	437	938.8	262	21,855	229	40
425	406	AECI	SOUTH AFRICA	1,796.1	115.3	260	1,189.6	463	478.3	403	28,500	170	28
426	440	CASIO COMPUTER [25]	JAPAN	1,787.5	34.2	421	2,087.0	367	896.8	274	6,147	434	36
427	340	EMPRESA COL. DE PETRÓL. [2]	COLOMBIA	1,783.0	(46.6)	490	2,414.3	336	N.A.		12,113	345	29
428	476	CONSOLIDATED GOLD FIELDS [1]	BRITAIN	1,761.8	372.5	86	3,263.1	264	1,105.1	228	14,029	312	32
429	439	LIEBHERR-INTERNATIONAL	SWITZERLAND	1,757.4	58.1	351	1,162.1	467	605.2	357	13,601	318	45
430	454	DENKI KAGAKU KOGYO [3]	JAPAN	1,749.5	62.3	343	2,923.2	288	656.3	336	5,561	448	28
431	437	JEFFERSON SMURFIT GROUP [11]	IRELAND	1,742.2	92.2	287	1,372.7	447	366.6	433	15,240	301	26
432	335	NORTHERN FOODS [3]	BRITAIN	1,735.8	69.5	329	860.4	479	521.4	382	23,077	215	20
433	442	PRIMA MEAT PACKERS [3]	JAPAN	1,726.5	5.1	472	763.7	484	147.5	482	5,023	461	20
434	•	FALCONBRIDGE	CANADA	1,722.0	276.6	129	2,186.2	357	986.5	249	9,380	383	10
435	451	TI GROUP	BRITAIN	1,708.1	255.1	147	1,115.5	469	420.5	416	20,700	238	34
436	495	KOKUYO [4]	JAPAN	1,696.8[a]	66.9[c]	333	1,404.5[a]	441	624.7[a]	350	2,796[a]	489	25
437	432	MD FOODS [4,24]	DENMARK	1,690.9[a]	92.3[a]	286	609.2[a]	494	163.6[a]	481	5,517[a]	450	20
438	•	COBERCO	NETHERLANDS	1,690.0	966.6	25	520.1	496	60.1	495	3,337	485	20
439	463	DIESEL KIKI [8]	JAPAN	1,684.5	26.5	438	1,767.1	395	575.1	366	7,900	404	40
440	446	SASOL [1]	SOUTH AFRICA	1,669.5	227.3	162	2,476.6	328	1,404.1	181	32,300	145	28
441	•	CIMENTS FRANÇAIS	FRANCE	1,667.2	134.5	237	1,788.9	390	652.6	339	9,343	385	32
442	465	Q.P. [9]	JAPAN	1,663.5	27.4	435	1,284.8	455	476.1	405	3,942	476	20
443	•	ENGLISH CHINA CLAYS [4]	BRITAIN	1,660.5	164.5	206	1,707.4	401	872.4	280	13,297	325	10
444	456	TOSOH [3]	JAPAN	1,656.2	29.5	429	3,137.7	275	542.8	378	6,000	438	28
445	•	LUCKY [18]	SOUTH KOREA	1,647.4	86.9	295	1,516.1	425	557.0	371	9,421	382	28
446	•	PT ASTRA INTERNATIONAL	INDONESIA	1,642.6[c]	50.4	374	352.1	497	82.2	494	27,448	181	40
447	469	HEWLETT-PACKARD [8]	W. GERMANY	1,641.0	41.1	399	796.4	483	215.2	471	5,484	452	44
448	•	AMOCO CANADA PETROLEUM	CANADA	1,635.2	(42.4)	489	6,071.8	136	634.2	344	5,000	462	29
449	433	BESNIER	FRANCE	1,632.9	63.4	339	274.5	498	20.3	496	5,745	443	20
450	447	BHARAT HEAVY ELECTRICALS [3,7]	INDIA	1,632.8	62.5	342	2,456.4	330	510.0	385	74,813	63	36

The definitions and concepts underlying the figures in this directory are explained on page 314. Industry code definitions appear on page 314. Footnotes appear on page 314.

THE 500 INTERNATIONAL

RANK BY SALES 1988	1987	COMPANY	COUNTRY	SALES $ Millions	PROFITS $ Millions	Rank	ASSETS $ Millions	Rank	STOCK-HOLDERS' EQUITY $ Millions	Rank	EMPLOYEES Number	Rank	INDUSTRY CODE
451	•	DOW CHEMICAL CANADA	CANADA	1,629.2	294.4	116	1,697.5	402	440.0	412	3,099	487	28
452	441	ASCOM HOLDING	SWITZERLAND	1,628.8[5]	35.7	413	1,447.0	436	613.9	353	14,590	308	36
453	•	METAL. HOBOKEN-OVERPELT [4]	BELGIUM	1,621.6[6]	22.3[6]	447	1,168.3[6]	466	289.8[6]	456	6,754[6]	421	33
454	419	AXEL SPRINGER VERLAG	W. GERMANY	1,617.4	53.2	365	718.4	488	240.4	468	11,594	354	27
455	479	AICHI MACHINE INDUSTRY [3]	JAPAN	1,612.7[6]	14.5[6]	464	719.0[6]	487	225.1[6]	470	4,313[6]	473	40
456	448	IMI	BRITAIN	1,607.6[5]	128.1	243	1,349.9	449	591.7	362	20,444	240	34
457	404	RHEINISCHE BRAUNKOHLENWERKE	W. GER.	1,607.1[6]	1.6[6]	477	3,709.9[6]	232	521.3[6]	383	16,045[6]	292	10
458	431	SAGEM	FRANCE	1,607.0	21.9	448	1,208.8	461	197.2	473	17,400	274	36
459	492	IBM ESPAÑA	SPAIN	1,606.1	183.7	190	847.0	480	470.4	406	4,342	472	44
460	464	TOYO TIRE & RUBBER [3]	JAPAN	1,605.6	27.3	436	1,560.1	417	172.8	479	9,204	387	30
461	477	NIPPON SHEET GLASS [3]	JAPAN	1,604.4	48.1	379	2,286.2	350	811.0	296	3,653	479	32
462	391	AGA	SWEDEN	1,598.2	90.3	288	2,454.9	332	643.6	342	13,543	320	28
463	350	CHARBONNAGES DE FRANCE [2]	FRANCE	1,595.8	(374.5)	496	4,724.4	179	195.7	474	30,137	158	10
464	•	CARNAUD	FRANCE	1,588.0	88.5	293	1,459.5	434	485.8	397	11,749	352	34
465	498	NGK INSULATORS [3]	JAPAN	1,586.7	54.4	362	1,889.5	386	815.6	294	7,800	406	32
466	435	FREEGOLD [4]	SOUTH AFRICA	1,583.8	151.6	222	2,010.5	375	1,701.3	151	104,569	42	10
467	452	NISSHINBO INDUSTRIES [27]	JAPAN	1,581.1[6]	57.7[6]	354	2,137.2[6]	360	1,034.8[6]	237	7,930[6]	403	22
468	•	GOODMAN FIELDER WATTIE [1]	AUSTRALIA	1,572.2	71.7	322	2,710.6	308	965.3	253	20,000	245	20
469	461	UNIÓN EXPLOSIVOS RIO TINTO	SPAIN	1,562.2[6]	45.3[6]	387	1,537.0[6]	421	395.0[6]	424	6,670[6]	426	28
470	481	KANEGAFUCHI CHEM. INDUSTRY [3]	JAPAN	1,558.6	56.8	357	1,853.1	387	752.4	309	4,600	466	28
471	•	TANABE SEIYAKU [3]	JAPAN	1,556.9[7]	67.5[7]	331	1,758.0	397	773.0	304	5,126	457	42
472	482	EZAKI GLICO [3]	JAPAN	1,553.2	33.6	423	1,424.5	438	570.5	368	3,377	483	20
473	497	TATUNG	TAIWAN	1,551.3	50.9	371	1,479.0	429	279.7	459	21,108	234	36
474	•	NINTENDO [23]	JAPAN	1,544.8	228.3	159	1,561.7	416	926.4	268	1,096	500	36
475	467	MOLSON [1]	CANADA	1,540.6	60.1	344	1,106.3	471	479.0	402	11,400	356	49
476	•	CHINA STEEL [12]	TAIWAN	1,537.9	409.5	79	4,644.9	187	3,404.4	66	9,662	379	34
477	•	EUROC	SWEDEN	1,531.7[5]	191.7	184	1,772.7	392	310.8	450	8,085	400	32
478	470	WACKER-CHEMIE	W. GERMANY	1,531.7	34.9	418	924.2	478	361.9	437	12,074	346	28
479	•	FUJIKURA [3]	JAPAN	1,528.5	39.5	403	2,012.6	374	606.3	355	7,300	412	33
480	480	TAIO PAPER MANUFACTURING [3]	JAPAN	1,524.7[6]	44.2[6]	392	2,088.8[6]	366	530.0[6]	380	2,787[6]	490	26
481	488	MURATA MANUFACTURING [25]	JAPAN	1,523.4	128.6	242	2,822.4	296	1,656.4	155	17,761	269	36
482	472	SEITA [2]	FRANCE	1,518.9	77.5	308	1,637.9	404	440.3	411	6,423	429	21
483	•	UNITED PAPER MILLS	FINLAND	1,502.9	231.6	158	2,641.1	316	1,157.6	215	9,932	376	26
484	•	SCHINDLER HOLDING	SWITZERLAND	1,500.8	58.2	350	1,405.4	440	532.4	379	22,752	221	37
485	•	DILLINGER HÜTTENWERKE	W. GERMANY	1,499.5[5]	16.4[6]	459	759.9[6]	486	258.9[6]	463	6,005[6]	437	33
486	485	CARLSBERG [4]	DENMARK	1,499.5	84.8	298	1,557.2	418	574.5	367	13,595	319	49
487	444	CONOCO	BRITAIN	1,498.6	119.9	255	1,359.8	448	902.8	271	1,492	499	29
488	•	GLYNWED INTERNATIONAL	BRITAIN	1,495.9	96.0	283	1,022.7	474	332.9	442	12,472	337	34
489	•	ELKEM	NORWAY	1,495.2	43.1	396	1,397.9	444	166.6	480	7,805	405	33
490	•	SANKYO ALUMINUM INDUSTRY [13]	JAPAN	1,484.1[6]	13.4[6]	467	1,470.8[6]	432	346.5[6]	439	4,929[6]	464	34
491	•	BPB INDUSTRIES [3]	BRITAIN	1,481.2	190.9	185	1,422.4	439	855.0	287	11,810	351	32
492	•	ALCOA OF AUSTRALIA	AUSTRALIA	1,480.6	281.3	125	2,271.3	351	1,213.7	202	6,382	430	10
493	418	MITSUI ENGINEERING & SHIPBLDG. [3]	JAPAN	1,470.8	(17.3)	485	3,620.5	240	713.5	316	8,572	391	37
494	•	WILLIAMS HOLDINGS	BRITAIN	1,470.7	168.2	203	1,496.9	427	514.8	384	13,481	322	28
495	•	SOMMER ALLIBERT	FRANCE	1,470.0	55.9	360	1,105.6	472	286.6	457	12,044	347	22
496	•	KIKKOMAN	JAPAN	1,461.3	35.2	416	1,184.8	464	477.0	404	4,361	470	20
497	494	KONE	FINLAND	1,455.5	67.3	332	1,611.6	408	392.0	426	17,471	272	45
498	445	ARLA [1]	SWEDEN	1,452.2	0.1	482	618.8	493	121.2	489	6,176	433	20
499	468	DU PONT DE NEMOURS [28]	W. GERMANY	1,446.2[6]	59.5[6]	346	813.5[6]	482	365.7[6]	434	4,196[6]	474	28
500	466	BROTHER INDUSTRIES [29]	JAPAN	1,439.4	41.9	398	1,851.6	388	873.2	279	8,213	396	36
		TOTALS		2,929,238.4	116,473.5		3,069,856.9		992,112.3		18,906,329		

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THE INTERNATIONAL 50

D WORST

CHANGE IN SALES

10 BIGGEST INCREASES

	SALES RANK	
ARBED	158	296.2%
MO OCH DOMSJO	258	177.7
BOND CORP. HOLDINGS	291	143.6
REDLAND	267	110.8
WILLIAMS HOLDINGS	494	93.9
HÜLS	172	86.5
NOVA	257	82.5
INCO	249	82.3
BHARAT PETROLEUM	286	79.0
SIEBE	423	78.6

10 BIGGEST DECREASES

TÜRKIYE PETROLLERI	198	29.5%
MCDERMOTT INTERNATIONAL	333	28.5
SAINT-GOBAIN	64	24.7
FELDMÜHLE NOBEL	180	17.6
CHARBONNAGES DE FRANCE	463	15.7
VALE DO RIO DOCE	387	15.5
SHOWA SHELL SEKIYU	92	13.8
NORTHERN FOODS	432	13.7
HITACHI ZOSEN	363	10.9
MOBIL OIL (W. GERMANY)	310	10.6

INDUSTRY MEDIANS

INCREASES	
RUBBER PRODUCTS	37.3%
BUILDING MATERIALS	26.0
PUBLISHING, PRINTING	25.0
MINING, CRUDE-OIL PRODUCTION	24.4
ELECTRONICS	24.1
BEVERAGES	23.5
METALS	23.0
METAL PRODUCTS	23.0
COMPUTERS (INCLUDES OFFICE EQUIP.)	22.9
SOAPS, COSMETICS	22.8
MOTOR VEHICLES AND PARTS	22.6
FOREST PRODUCTS	22.2
TEXTILES	20.1
AEROSPACE	19.2
FOOD	18.9
CHEMICALS	17.4
PHARMACEUTICALS	17.4
INDUSTRIAL AND FARM EQUIPMENT	16.3
SCIENTIFIC AND PHOTOGRAPHIC EQUIP.	13.1
TOBACCO	11.0
TRANSPORTATION EQUIPMENT	10.5
PETROLEUM REFINING	7.3

CHANGE IN PROFITS†

10 BIGGEST INCREASES

	SALES RANK	
PEMEX	46	22,370.1%
GENERAL MOTORS OF CANADA	36	7,521.3
ZAMBIA INDUSTRIAL & MINING	345	1,166.9
EBARA	421	1,123.3
KYMMENE	319	1,013.7
EUROC	477	746.1
RAUMA-REPOLA	340	741.5
DILLINGER HÜTTENWERKE	485	650.4
PT ASTRA INTERNATIONAL	446	647.5
METSÄ-SERLA	420	622.6

10 BIGGEST DECREASES

FRIED. KRUPP	86	1,243.5%
RUHRKOHLE	54	820.2
AÉROSPATIALE	126	146.8
EMPRESA COLOMBIANA	427	145.3
PACIFIC DUNLOP	309	143.1
AMOCO CANADA PETROLEUM	448	138.6
TEXACO (BRITAIN)	264	99.5
ARLA	498	96.5
NISSAN DIESEL MOTOR	401	94.3
VALMET	375	93.6

INDUSTRY MEDIANS

INCREASES	
MINING, CRUDE-OIL PRODUCTION	148.3%
FOREST PRODUCTS	61.4
TOBACCO	58.0
METALS	52.7
BUILDING MATERIALS	51.6
ELECTRONICS	50.1
INDUSTRIAL AND FARM EQUIPMENT	49.2
MOTOR VEHICLES AND PARTS	44.7
METAL PRODUCTS	44.4
PHARMACEUTICALS	42.0
BEVERAGES	40.5
CHEMICALS	38.0
AEROSPACE	33.4
FOOD	25.4
PETROLEUM REFINING	24.4
COMPUTERS (INCLUDES OFFICE EQUIP.)	21.0
RUBBER PRODUCTS	20.7
SOAPS, COSMETICS	20.5
PUBLISHING, PRINTING	19.4
SCIENTIFIC AND PHOTOGRAPHIC EQUIP.	19.4
TEXTILES	14.2

THE MONEY LOSERS

	SALES RANK	LOSS $ Millions
SIDERBRÁS	156	$7,192.8*
BRITISH COAL	98	919.7*
CHARBONNAGES DE FRANCE	463	374.5*
MCDERMOTT INTERNATIONAL	333	261.8*
KOOR INDUSTRIES	304	232.8*
FRIED. KRUPP	86	153.4
RUHRKOHLE	54	75.5
SAARBERGWERKE	275	48.2*
EMPRESA COLOMBIANA	427	46.6
AMOCO CANADA PETROLEUM	448	42.4
KHD	313	41.9*
PACIFIC DUNLOP	309	29.3
KANEBO	188	19.0*
MITSUI ENGINEER. & SHIPBLDG.	493	17.3*
AÉROSPATIALE	126	10.6
SNECMA	282	4.5*

†Listings exclude companies that lost money in 1987.

*Also lost money in 1987.

THE 50 INTERNATIONAL

D WORST

ARRIVALS AND DEPARTURES

NEWCOMERS	1988 SALES RANK
ASEA BROWN BOVERI	29
BOA GROUP	422
BOND CORP. HOLDINGS	291
CIMENTS FRANÇAIS	441
COBERCO	438
COSMO OIL	91
DOW CHEMICAL CANADA	451
FERRUZZI FINANZIARIA	28
FUJIKURA	479
GOLD STAR	206
GOODMAN FIELDER WATTIE	468
HONAM OIL REFINERY	284
KIKKOMAN	496
LUCKY	445
NINTENDO	474
PT ASTRA INTERNATIONAL	446
SANKYO ALUMINUM INDUSTRY	490
SIEBE	423
SOMMER ALLIBERT	495
TANABE SEIYAKU	471
UNITED PAPER MILLS	483
VOEST-ALPINE STAHL	239
WILLIAMS HOLDINGS	494

RETURNEES*	
ALCOA OF AUSTRALIA (1984: 447)	492
AMOCO CANADA PETROLEUM (1985: 348)	448
BOWATER INDUSTRIES (1985: 71)	320
BPB INDUSTRIES (1983: 472)	491
CARNAUD (1982: 424)	464
CHINA STEEL (1986: 472)	476
DILLINGER HÜTTENWERKE (1985: 272)	485
ELKEM (1985: 459)	489
ENGLISH CHINA CLAYS (1986: 498)	443
EUROC (1980: 381)	477
FALCONBRIDGE (1976: 436)	434
GLYNWED INTERNATIONAL (1980: 423)	488
METAL. HOBOKEN-OVERPELT (1986: 229)	453
MO OCH DOMSJO (1986: 464)	258
OUTOKUMPU (1986: 382)	341
SCHINDLER HOLDING (1986: 393)	484

DEPARTURES	1987 SALES RANK
ACI INTERNATIONAL[1]	416
AHLSTROM (A.)	471
AMATIL	500
ARABIAN OIL	414
ASEA[2]	68
BARILLA	493
BRITOIL[1]	344
BROWN BOVERI[2]	88
COPERSUCAR	427
DEGUSSA[3]	103
DMC (DOLLFUS MIEG)	490
ENSITE[4]	473
GENERAL ELECTRIC CANADA	489
GENERAL MOTORS CONTINENTAL	478
GEORG FISCHER	474
IBM NEDERLAND[3]	438
IMETAL[3]	405
INTERNATIONAL THOMSON ORGANISATION[3]	185
KOREA EXPLOSIVES[4]	181
LUCKY-GOLDSTAR[5]	32
MOBIL OIL FRANCAISE	487
MOBIL OIL ITALIANA	459
MONTEDISON[1]	48
NICHIREI[3]	319
NORTHERN ENGINEERING INDUSTRIES	475
POHANG IRON & STEEL[4]	186
POLYSAR[1]	316
PORSCHE	369
PROUVOST	453
ROVER GROUP[1]	140
ROWNTREE[1]	287
SAINT LOUIS	357
SHOWA SANGYO	499
SUMITOMO METAL MINING[3]	309
SWEDISH MATCH[1]	276
TARMAC[3]	183
VAAL REEFS	491
VICKERS	483

* Figures in parentheses indicate year and sales rank the last time the company was listed.
[1] Acquired by another FORTUNE International 500 company.
[2] ASEA and Brown Boveri merged the majority of their operations into a new company, Asea Brown Boveri.
[3] No longer classified as an industrial.
[4] Financial data not available.
[5] Unconsolidated into Lucky, Honam Oil Refinery, and Gold Star.

THE 500 BY COUNTRY

	1-100	101-200	201-300	301-400	401-500	Total	Largest Company	$ Millions	Rank
ARGENTINA	0	1	0	0	0	1	YPF (YACIMIENTOS PETROLIFEROS)	6,435.0	125
AUSTRALIA	1	3	1	5	3	13	ELDERS IXL	7,618.2	97
AUSTRIA	0	0	2	0	0	2	ÖMV	3,565.2	228
BELGIUM	1	2	0	0	1	4	PETROFINA	9,898.5	63
BRAZIL	1	1	0	2	1	5	PETROBRAS (PETRÓLEO BRASILEIRO)	14,806.4	39
BRITAIN	11	14	20	17	12	74	BRITISH PETROLEUM	46,174.0	3
BRITAIN/NETHERLANDS	2	0	0	0	0	2	ROYAL DUTCH/SHELL GROUP	78,381.1	1
CANADA	4	4	7	7	6	28	GENERAL MOTORS OF CANADA	15,657.2	36
CHILE	0	0	1	0	0	1	CODELCO-CHILE	3,153.0	262
COLOMBIA	0	0	0	0	1	1	EMPRESA COLOMBIANA DE PETRÓLEOS	1,783.0	427
DENMARK	0	0	0	0	2	2	MD FOODS	1,690.9	437
FINLAND	0	2	0	6	3	11	NESTE	6,352.9	129
FRANCE	11	9	7	4	8	39	RENAULT	27,109.7	16
INDIA	1	0	3	2	1	7	INDIAN OIL	9,853.7	65
INDONESIA	0	0	0	0	1	1	PT ASTRA INTERNATIONAL	1,642.6	446
IRELAND	0	0	0	0	1	1	JEFFERSON SMURFIT GROUP	1,742.2	431
ISRAEL	0	0	0	1	0	1	KOOR INDUSTRIES	2,638.7	304
ITALY	4	1	0	1	0	6	IRI	45,521.5	4
ITALY/SWITZERLAND	0	1	0	0	0	1	PIRELLI	7,006.4	108
JAPAN	31	31	34	31	32	159	TOYOTA MOTOR	50,789.9	2
KUWAIT	1	0	0	0	0	1	KUWAIT PETROLEUM	12,078.0	50
LUXEMBOURG	0	1	0	0	0	1	ARBED	5,112.0	158
MALAYSIA	0	0	1	0	0	1	PETRONAS	3,633.0	223
MEXICO	1	0	0	0	1	2	PEMEX (PETRÓLEOS MEXICANOS)	13,060.0	46
NETHERLANDS	2	1	2	3	1	9	PHILIPS	28,370.5	13
NETHERLANDS ANTILLES	0	1	0	0	0	1	SCHLUMBERGER	4,924.5	163
NEW ZEALAND	0	1	0	0	0	1	FLETCHER CHALLENGE	5,135.1	155
NORWAY	1	1	0	0	1	3	NORSK HYDRO	9,202.0	75
PANAMA	0	0	0	1	0	1	MCDERMOTT INTERNATIONAL	2,351.7	333
SAUDI ARABIA	0	0	0	1	0	1	SABIC	2,369.9	331
SOUTH AFRICA	1	1	0	1	3	6	BARLOW RAND	9,314.6	71
SOUTH KOREA	3	3	3	1	1	11	SAMSUNG	27,386.1	15
SPAIN	2	0	3	1	2	8	INI	14,985.5	38
SWEDEN	2	3	7	5	3	20	VOLVO	15,752.1	34
SWITZERLAND	3	4	3	0	3	13	NESTLÉ	27,803.0	14
TAIWAN	0	1	0	0	3	4	CHINESE PETROLEUM	6,706.4	118
TURKEY	0	3	0	0	0	3	KOÇ HOLDING	5,568.6	143
VENEZUELA	1	0	0	0	0	1	PETRÓLEOS DE VENEZUELA	9,507.8	68
WEST GERMANY	16	11	6	10	10	53	DAIMLER-BENZ	41,817.9	5
ZAMBIA	0	0	0	1	0	1	ZAMBIA INDUSTRIAL & MINING	2,285.9	345

THE INTERNATIONAL 500

NOTES TO THE INTERNATIONAL 500

SALES

All companies on the list must have derived more than 50% of their sales from manufacturing and/or mining. Sales do not include excise taxes or customs duties levied according to either volume or value sales, and so the figures for some companies—most of which sell gasoline, liquor, or tobacco—may be lower than those published by the companies themselves. Unless otherwise noted, figures exclude intracompany transactions and include consolidated subsidiaries more than 50% owned, either fully or on a prorated basis. Figures have been converted to dollars using an exchange rate that consists of the official average rate during each company's fiscal year (ended December 31, 1988, unless otherwise noted).

PROFITS

Profits are shown after taxes, minority interests, and extraordinary items. Figures have been converted to dollars using an exchange rate that consists of the official average rate during each company's fiscal year (ended December 31, 1988, unless otherwise noted).

ASSETS

Totals shown at each company's year-end. Figures have been converted to dollars at the official exchange rate at each company's year-end.

STOCKHOLDERS' EQUITY

Stockholders' equity is shown at each company's year-end. Minority interest is not included. Figures have been converted to dollars at the official exchange rate at each company's year-end.

EMPLOYEES

The figure shown is either a year-end or yearly average number as published.

INDUSTRY CODE

Industry code numbers used in the directory indicate which industry represents the greatest volume of industrial sales for each company. The numbers refer to the industry groups below, which are based on categories established by the U.S. Office of Management and Budget and issued by the Federal Statistical Policy and Standards Office. They are the same industry groups as those shown in the tables beginning on page 310. The median figures in the tables refer only to results of companies in the 500. No attempt has been made to calculate medians in groups with fewer than four companies.

10	Mining, crude-oil production
20	Food
21	Tobacco
22	Textiles
23	Apparel
25	Furniture
26	Forest products
27	Publishing, printing
28	Chemicals
29	Petroleum refining
30	Rubber products
31	Leather
32	Building materials
33	Metals
34	Metal products
36	Electronics
37	Transportation equipment
38	Scientific and photographic equipment
40	Motor vehicles and parts
41	Aerospace
42	Pharmaceuticals
43	Soaps, cosmetics
44	Computers
45	Industrial and farm equipment
46	Jewelry, silverware
47	Toys, sporting goods
49	Beverages

The figures in this FORTUNE International 500 Directory were prepared by Susan E. Kuhn and David J. Morrow.

FOOTNOTES TO THE 500

- Indicates that a corporation was not among the 500 in 1987.
N.A. Not Available
[1] Figures are for fiscal year ended June 30, 1988.
[2] Government-owned.
[3] Figures are for fiscal year ended March 31, 1988.
[4] Figures are for fiscal year ended September 30, 1988.
[5] Figures include some significant subsidiaries owned 50% or less, either fully or on a prorated basis.
[6] Figures are unconsolidated.
[7] Figure is a FORTUNE estimate.
[8] Figures are for fiscal year ended October 31, 1988.
[9] Figures are for fiscal year ended November 30, 1988.
[10] Name was changed from Nippon Kokan KK, June 8, 1988.
[11] Figures are for fiscal year ended January 31, 1988.
[12] Name was changed from Mitsubishi Chemical Industries, June 1, 1988.
[13] Figures are for fiscal year ended May 31, 1988.
[14] Figures are for fiscal year ended February 29, 1988.
[15] Figures are for fiscal year ended October 20, 1988.
[16] Figures are for fiscal year ended April 30, 1988.
[17] Name was changed from Pilkington Brothers in July 1987.
[18] Formerly consolidated into Lucky-Goldstar.
[19] Name was changed from CDF Chimie, September 1988.
[20] Name was changed from Nippon Gakki, October 1, 1987.
[21] Figures are for fiscal year ended July 31, 1988.
[22] Figures are for fiscal year ended April 20, 1988.
[23] Figures are for fiscal year ended August 31, 1988.
[24] Name was changed from Pioneer Concrete Services, December 19, 1988.
[25] Figures are for fiscal year ended March 20, 1988.
[26] Name was changed from Mejeriselskabet Danmark, October 3, 1988.
[27] Figures are for fiscal year ended April 25, 1988.
[28] Figures are for fiscal year ended December 15, 1988.
[29] Figures are for fiscal year ended November 20, 1988.

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THE 10 BIGGEST BANKS OUTSIDE

JAPAN'S LEAD GETS LONGER

Powered by steady growth in assets, Japanese banks are increasing their world dominance. Ten of the 11 largest banks outside the U.S. are Japanese, a greater concentration at the top than last year. Of the 35 banks with $100 billion or more in assets, over half are Japanese. Such strength is partly a result of currency translations. The dollar weakened against the yen last year, so asset increases appear greater in dollar terms than in yen. But dollars are what much of the world cares about—and any way you cut it, the Japanese banks at the top are a virtual dynasty. Dai-Ichi Kangyo, Sumitomo, Fuji, Mitsubishi, and Sanwa have shared the top five rankings since 1984. When FORTUNE published its first banking list 20 years ago, only two of the top ten outside the U.S. were Japanese, and London was still the center of world banking, aside from New York, with Barclays and National Westminster at the top.

While the Japanese marched forward, their European counterparts slugged it out in a tumultuous year. Some established heavyweights slipped several notches from last year's rankings. Deutsche Bank fell ten places, to No. 21, and Crédit Agricole, the largest non-Japanese bank on this year's list, declined three spots, to tenth.

The two banks making their first appearances in the top 100 are European. Banco Bilbao Vizcaya (No. 65) is the product of a merger between two Spanish banks, Banco de Bilbao and Banco de Vizcaya. Südwestdeutsche Landesbank (No. 90) is a union of two German banks, Landesbank Stuttgart and Badische Kommunale Landesbank. All four banks departing the list are also European: Banco Hispano Americano, Bank für Gemeinwirtschaft, Banco Central, and the Royal Bank of Scotland. Anticipation of 1992 has caused unprecedented capital movement. European banks are bracing themselves for new challenges from outside their borders.

Those who think the future lies along the Pacific Rim will find further support in this year's list. Two banks from the region are back. Helped by appreciation of the local currency against the dollar, assets of the Bank of Seoul and Australia's Commonwealth Bank Group jumped sharply. After a three-year absence, the Bank of Seoul leaped to the 88th position because its assets increased by 50%. Commonwealth Bank rejoins the list at No. 92 after spending a year down under.

Third World debt caught up with many Canadian and British banks in 1987. They set aside vast reserves to account for the likelihood that those loans will never be repaid in full. The reserves clobbered 1987 earnings, so profits for 1988 shone by comparison. Toronto-Dominion Bank (No. 77) posted the largest gain, 1,247%. The listed Canadian banks, including the Royal Bank of Canada (No. 42) and the Canadian Imperial Bank of Commerce (No. 51), had combined profits of $2.4 billion, vs. a loss totaling $698 million the year before. In Britain, earnings at Barclays (No. 13) were up 421%, while National Westminster (No. 18) had a 131% increase.

British banks also scored well in return on stockholders' equity, a key figure for any business. Britain claims two of the top three: Standard Chartered Bank (No. 85) and Lloyds Bank (No. 36). The leader by this measure was Banco do Brasil (No. 49), but return ratios must be regarded skeptically in a country with triple-digit inflation. The top ten in ROE also included two Swedish banks and two of the ever-present Japanese.

– Jacob Park and Joan C. Viebranz

RANK BY ASSETS 1988	1987	COMPANY
1	1	DAI-ICHI KANGYO BANK[7]
2	2	SUMITOMO BANK[7]
3	3	FUJI BANK[7]
4	4	MITSUBISHI BANK[7]
5	5	SANWA BANK[7]
6	6	INDUSTRIAL BANK OF JAPAN[7]
7	8	NORINCHUKIN BANK[7,9]
8	12	TOKAI BANK[7]
9	16	MITSUI BANK[7]
10	7	CRÉDIT AGRICOLE[10]
11	10	MITSUBISHI TRUST & BANKING[7,9]
12	9	BANQUE NATIONALE DE PARIS[10]
13	14	BARCLAYS BANK
14	21	BANK OF TOKYO[7]
15	19	LONG-TERM CREDIT BANK OF JAPAN[7]
16	17	SUMITOMO TRUST & BANKING[7,9]
17	13	CRÉDIT LYONNAIS[10]
18	15	NATIONAL WESTMINSTER BANK
19	22	TAIYO KOBE BANK[7,9]
20	20	MITSUI TRUST & BANKING[7]
21	11	DEUTSCHE BANK[11]
22	23	YASUDA TRUST & BANKING[7,9]
23	18	SOCIÉTÉ GÉNÉRALE
24	25	DAIWA BANK[7,9]
25	28	BANK OF CHINA[10]
26	24	DRESDNER BANK[11]
27	27	CIE FINANCIÈRE DE PARIBAS
28	30	TOYO TRUST & BANKING[7,9]
29	35	NIPPON CREDIT BANK[7,9]
30	31	HONGKONG & SHANGHAI BANKING
31	26	UNION BANK OF SWITZERLAND[9]
32	38	KYOWA BANK[7]
33	29	SWISS BANK CORP.[9]
34	32	COMMERZBANK[11]
35	37	MIDLAND BANK
36	40	LLOYDS BANK
37	49	SHOKO CHUKIN BANK[7,10]
38	47	SAITAMA BANK[7,9]
39	33	WESTDEUTSCHE LANDESBANK[10,11]
40	36	BAYERISCHE VEREINSBANK[11]
41	34	BANCA NAZIONALE DEL LAVORO[10]
42	48	ROYAL BANK OF CANADA[12]
43	56	ZENSHINREN BANK[7]
44	39	ALGEMENE BANK NEDERLAND
45	44	AMSTERDAM-ROTTERDAM BANK
46	51	ISTITUTO BANC. SAN PAOLO DI TORINO[10]
47	53	BANK OF YOKOHAMA[7,9]
48	43	RABOBANK
49	50	BANCO DO BRASIL[10]
50	42	BAYERISCHE LANDESBANK[11]

THE U.S.

COUNTRY	ASSETS[1] $ Millions	Percent change in U.S. dollars	Percent change in local currency	DEPOSITS[2] $ Millions	Rank	LOANS[3] $ Millions	NET INCOME[4] $ Millions	STOCK-HOLDERS' EQUITY[5] $ Millions	OFFICES[6] Number	EMPLOY-EES Number
JAPAN	379,322.8	30.8	11.4	283,185.4	1	212,719.0	1,095.8	8,567.5	374	18,663
JAPAN	363,232.6	33.7	13.9	267,995.2	2	194,615.4	1,023.5	8,342.2	372	16,516
JAPAN	360,529.8	37.0	16.1	258,574.7	3	194,254.3	904.2	8,888.3	325	14,542
JAPAN	348,999.0	41.5	20.5	251,146.9	4	185,062.9	875.4	8,286.0	250	14,296
JAPAN	330,705.4	38.1	17.7	246,625.5	5	193,856.3	898.4	7,641.1	295	14,337
JAPAN	272,918.3	32.9	13.2	216,615.9	6	146,857.2	472.0	6,273.2	33	5,342
JAPAN	235,944.3	26.6	7.9	214,256.7	7	97,744.9	249.0	1,283.9	39	3,163
JAPAN	227,644.3	34.4	13.9	172,072.5	9	122,260.5	480.0	5,140.8	232	12,308
JAPAN	211,358.6	28.7	9.7	152,698.9	17	123,313.2	572.1	4,601.7	234	10,185
FRANCE	210,566.3	(2.0)	11.5	167,103.5	11	190,043.9	566.1	6,025.3	9,746	73,693
JAPAN	208,341.7	27.7	8.8	178,030.5	8	94,690.9	472.0	3,204.6	64	6,050
FRANCE	196,922.3	7.6	22.3	169,887.1	10	179,449.5	514.1	4,545.8	2,533	58,091
BRITAIN	189,250.5	14.3	19.2	157,401.0	13	157,003.1	1,580.0	10,328.3	4,100	118,410
JAPAN	185,428.8	27.6	8.7	129,368.4	22	96,526.1	342.1	3,941.6	319	13,159
JAPAN	184,752.9	27.1	8.2	147,167.6	19	116,072.9	373.6	4,176.2	27	3,336
JAPAN	182,529.1	26.1	7.4	162,201.0	12	80,513.6	455.7	3,290.8	61	6,554
FRANCE	178,848.1	6.0	20.6	153,745.4	15	161,816.8	346.4	5,545.0	2,671	58,151
BRITAIN	178,394.1	8.7	13.3	153,688.1	16	154,214.4	1,672.6	10,755.1	3,767	111,000
JAPAN	175,470.4	26.1	7.5	131,757.8	21	112,057.7	298.6	3,251.4	365	13,218
JAPAN	174,943.5	33.9	14.1	151,352.7	18	80,084.5	369.1	2,661.9	61	6,345
W. GERMANY	172,142.5	0.8	13.8	154,824.6	14	138,983.9	673.1	6,754.2	1,530	54,769
JAPAN	167,847.6	26.0	7.3	126,845.0	23	73,458.3	306.9	2,013.1	80	5,358
FRANCE	155,457.3	1.4	15.3	134,494.6	20	137,381.7	510.7	3,315.8	2,327	45,462
JAPAN	150,733.7	27.6	8.7	76,790.4	39	79,934.9	253.9	2,641.7	202	8,865
CHINA	149,997.5	26.6	26.6	60,068.4	53	51,114.7	1,132.6	6,603.1	920	43,600
W. GERMANY	130,230.6	(1.1)	11.6	121,145.4	24	107,839.3	284.0	4,340.9	1,405	38,012
FRANCE	121,597.4	(0.8)	12.9	94,916.2	28	92,923.4	445.7	3,230.5	N.A.	25,500
JAPAN	120,873.1	23.7	5.3	109,130.6	25	49,374.4	272.3	1,717.4	61	5,142
JAPAN	115,176.8	24.6	6.2	92,108.1	30	71,644.0	222.9	2,403.5	24	2,283
HONG KONG	113,165.7	4.9	5.5	101,886.9	26	58,476.4	550.7	4,601.1	1,300	52,414
SWITZERLAND	110,907.4	(12.1)	3.8	92,516.3	29	93,169.3	531.9	6,724.3	268	20,872
JAPAN	110,613.7	26.7	8.0	83,621.8	36	65,372.9	258.3	2,755.0	238	8,287
SWITZERLAND	102,602.4	(10.8)	5.4	86,544.4	32	87,881.0	461.4	6,063.4	234	17,477
W. GERMANY	101,719.9	(1.2)	11.5	95,557.8	27	85,178.8	277.3	3,324.7	888	27,320
BRITAIN	100,785.9	10.3	15.0	86,777.3	31	72,833.7	733.9	5,496.0	1,980	59,093
BRITAIN	93,741.8	10.7	15.4	82,934.2	37	78,964.5	1,095.5	5,199.4	2,690	83,932
JAPAN	93,210.0	22.3	4.1	84,031.6	35	75,986.7	44.9	2,212.4	98	6,316
JAPAN	93,168.3	24.9	6.4	70,988.5	46	54,047.6	173.7	2,106.5	208	8,054
W. GERMANY	93,037.5	(4.2)	8.2	85,903.0	33	76,727.1	91.5	2,364.5	18	9,696
W. GERMANY	91,669.7	(3.8)	8.7	85,675.7	34	80,142.2	144.8	2,155.4	463	14,785
ITALY	90,968.7	(6.1)	5.9	76,262.2	40	68,570.3	119.8	3,111.6	535	26,766
CANADA	90,230.7	16.2	7.7	72,312.2	44	63,770.9	569.7	4,170.7	1,560	46,096
JAPAN	86,874.6	33.5	13.7	79,358.2	38	41,260.2	190.5	1,236.3	18	980
NETHERLANDS	85,069.9	(0.4)	12.9	76,026.0	41	51,988.0	309.1	3,004.5	960	30,580
NETHERLANDS	83,967.0	3.1	16.8	73,955.0	43	44,563.4	297.0	2,948.1	859	23,198
ITALY	81,648.1	10.2	24.3	61,861.4	51	40,199.4	445.3	3,226.6	719	19,416
JAPAN	81,420.4	30.9	11.5	61,578.2	52	49,733.5	130.8	2,122.9	200	6,727
NETHERLANDS	80,707.3	(2.0)	11.0	74,884.1	42	56,893.6	393.6	4,636.4	3,299	33,200
BRAZIL	80,202.4	5.9	1,022.1	25,125.9	96	61,859.7	2,211.8	5,063.8	4,100	135,425
W. GERMANY	79,961.0	(4.4)	8.0	67,213.2	49	63,777.8	117.8	1,760.9	7	4,474

THE 100 BIGGEST BANKS OUTSIDE

RANK BY ASSETS 1988	1987	COMPANY	COUNTRY	ASSETS[1] $ Millions	Percent change in U.S. dollars	Percent change in local currency	DEPOSITS[2] $ Millions	Rank	LOANS[3] $ Millions	NET INCOME[4] $ Millions
51	54	CANADIAN IMPERIAL BANK OF COMMERCE[12]	CANADA	77,631.8	15.6	7.1	59,512.0	54	55,166.4	472.7
52	52	CHUO TRUST & BANKING[7,9]	JAPAN	76,848.0	23.7	5.3	69,140.5	48	28,776.6	91.2
53	64	HOKKAIDO TAKUSHOKU BANK[7,9]	JAPAN	76,682.0	23.6	5.3	58,286.0	55	43,086.3	114.4
54	46	BAYERISCHE HYPOTHEKEN & WECHSEL[11]	W. GERMANY	76,218.0	(5.2)	7.0	71,013.4	45	67,897.4	141.8
55	41	CRÉDIT SUISSE[6]	SWITZERLAND	75,488.0	(10.5)	5.7	64,010.7	50	62,471.8	404.4
56	45	DEUTSCHE GENOSSENSCHAFTSBANK	W. GERMANY	74,752.0	(7.8)	4.0	69,745.4	47	58,923.8	86.6
57	70	BANK MELLI IRAN[5,13]	IRAN	72,817.0	36.4	27.0	49,172.6	64	25,637.9	45.1
58	59	CIE FINANCIÈRE DE SUEZ	FRANCE	67,373.8	4.4	18.7	33,586.2	84	49,757.2	448.2
59	72	WESTPAC BANKING[8]	AUSTRALIA	66,225.0	32.8	20.3	31,416.3	90	39,364.5	528.3
60	57	CASSA DI RISPARMIO DELLE PROVINCIE LOMBARDE	ITALY	65,370.9	0.5	13.4	52,070.9	61	29,985.6	512.6
61	60	BANK OF MONTREAL[12]	CANADA	64,695.3	1.1	(6.3)	54,415.2	58	42,621.7	442.6
62	62	CRÉDIT INDUSTRIEL ET COMMERCIAL[6]	FRANCE	63,011.1	.0	13.7	53,542.3	60	56,693.5	169.1
63	55	GÉNÉRALE DE BANQUE	BELGIUM	62,615.0	(5.3)	7.2	57,959.0	56	43,777.7	202.7
64	61	BANCA COMMERCIALE ITALIANA[10]	ITALY	62,595.0	(0.7)	12.0	54,146.3	59	44,315.2	286.6
65	•	BANCO BILBAO VIZCAYA	SPAIN	62,508.8	--	--	40,122.9	71	28,184.2	730.4
66	58	NORDDEUTSCHE LANDESBANK[7,11]	W. GERMANY	61,958.5	(4.6)	7.7	57,171.7	57	54,753.2	38.3
67	63	MONTE DEI PASCHI DI SIENA[7,10]	ITALY	61,823.9	(1.8)	10.7	50,100.0	63	31,652.6	195.2
68	68	BANK OF NOVA SCOTIA[12]	CANADA	61,223.9	12.8	4.5	48,030.4	65	41,661.6	405.2
69	75	AUSTRALIA & NEW ZEALAND BANKING[8]	AUSTRALIA	57,764.2	24.8	13.0	31,577.2	89	29,011.0	471.5
70	65	BANCO DI NAPOLI[10]	ITALY	57,297.9	(4.2)	8.0	47,559.0	66	38,433.3	56.9
71	71	CREDITO ITALIANO[10]	ITALY	56,856.3	10.0	24.0	50,614.4	62	41,298.4	213.5
72	69	GROUPE DES BANQUES POPULAIRES	FRANCE	55,926.1	3.8	18.1	45,399.0	68	50,375.9	229.4
73	66	BANCO DI ROMA[10]	ITALY	54,664.8	(3.8)	8.5	45,867.5	67	39,350.8	44.8
74	85	CHIBA BANK[7,9]	JAPAN	51,529.3	49.8	27.6	39,646.3	72	35,147.5	104.7
75	94	NATIONAL AUSTRALIA BANK[8]	AUSTRALIA	49,856.4	49.7	35.6	30,497.1	92	38,621.9	426.9
76	74	STATE BANK OF INDIA[7,10,14]	INDIA	49,541.0	5.8	--	N.A.		N.A.	N.A.
77	83	TORONTO-DOMINION BANK[12]	CANADA	48,606.5	17.3	8.7	38,041.1	75	35,702.0	534.1
78	86	HOKURIKU BANK[7,9]	JAPAN	48,387.6	24.7	6.3	38,420.4	74	33,861.1	99.9
79	84	SKANDINAVISKA ENSKILDA BANKEN	SWEDEN	47,163.8	17.0	23.7	31,182.4	91	30,539.7	128.0
80	79	BANK BRUSSELS LAMBERT[6]	BELGIUM	45,768.2	5.0	7.6	40,608.7	69	27,955.6	109.5
81	93	JOYO BANK[7,9]	JAPAN	45,345.1	41.8	20.8	38,039.3	76	26,540.5	112.5
82	73	HESSISCHE LANDESBANK[11]	W. GERMANY	44,358.4	(6.4)	5.7	36,632.6	80	34,059.7	37.3
83	76	NEDERLANDSCHE MIDDENSTANDSBANK	NETHERLANDS	43,253.2	(4.6)	8.0	40,365.6	70	30,148.4	152.3
84	80	CRÉDIT MUTUEL[6]	FRANCE	43,234.3	(0.6)	13.1	31,577.2	88	22,046.2	238.5
85	67	STANDARD CHARTERED BANK	BRITAIN	42,847.3	(23.6)	(20.3)	34,397.3	83	36,814.0	488.2
86	92	SHIZUOKA BANK[7,9]	JAPAN	42,838.7	34.5	14.5	36,884.2	78	27,660.3	115.8
87	77	CRÉDIT COMMUNAL DE BELGIQUE	BELGIUM	41,963.0	(7.4)	4.7	37,404.2	77	26,406.7	41.9
88	•	BANK OF SEOUL	SOUTH KOREA	41,434.9	--	--	11,901.7	99	7,902.4	43.3
89	78	BANQUE FRANÇAISE DU COMMERCE EXTÉRIEUR	FRANCE	41,311.2	(7.8)	4.9	26,172.6	95	38,832.8	12.3
90	•	SUDWESTDEUTSCHE LANDESBANK[7,11]	W. GERMANY	40,994.2	--	--	38,912.2	73	34,057.2	42.1
91	82	ASLK-CGER	BELGIUM	40,292.0	(3.2)	9.5	33,440.7	86	31,894.1	76.8
92	•	COMMONWEALTH BANK GROUP[8]	AUSTRALIA	40,078.8	33.6	21.2	23,106.3	97	22,740.2	265.8
93	89	TRUSTEES SAVINGS BANK GROUP[15]	BRITAIN	39,831.2	17.3	14.1	33,527.1	85	20,585.5	489.0
94	98	PKBANKEN[16]	SWEDEN	39,756.2	27.0	34.3	29,164.4	93	25,501.5	94.4
95	97	ASHIKAGA BANK[7,9]	JAPAN	39,706.1	32.6	13.0	34,673.0	82	28,689.7	103.4
96	81	CREDITANSTALT-BANKVEREIN[7]	AUSTRIA	39,265.7	(7.1)	4.8	36,867.0	79	22,433.4	33.9
97	96	KREDIETBANK[6]	BELGIUM	39,206.0	22.9	14.1	35,249.4	81	34,593.1	117.3
98	91	SVENSKA HANDELSBANKEN	SWEDEN	38,822.4	11.1	17.5	26,814.4	94	23,427.0	97.6
99	87	CRÉDIT COMMERCIAL DE FRANCE	FRANCE	38,509.1	0.3	14.1	32,720.1	87	33,179.7	94.2
100	95	SWEDBANK	SWEDEN	38,410.4	18.5	25.4	13,006.2	98	29,972.1	8.3
		TOTALS		10,699,767.4			8,403,922.4		6,829,717.6	37,211.6

THE U.S.

	STOCK-HOLDERS' EQUITY[5] $ Millions	OFFICES[6] Number	EMPLOY-EES Number
	3,777.9	1,528	36,194
	529.6	55	4,222
	1,536.4	225	6,512
	2,218.5	527	13,649
	4,791.6	207	15,055
	1,342.0	23	4,732
	554.9	1,880	21,309
	4,881.6	N.A.	22,423
	4,306.0	1,949	46,506
	3,728.7	534	14,965
	3,102.4	1,226	34,115
	1,508.9	1,250	26,000
	1,605.5	1,175	16,367
	3,172.5	559	21,035
	4,143.2	3,208	32,027
	1,316.4	207	6,190
	3,142.0	773	18,983
	2,601.9	1,248	29,113
	3,055.7	1,735	42,445
	917.5	501	13,439
	2,315.2	521	17,176
	1,770.3	1,855	27,972
	1,305.1	407	14,774
	1,614.6	166	4,891
	3,332.5	1,661	36,950
	N.A.	11,361	284,802
	3,079.6	960	22,853
	1,354.3	187	5,035
	870.2	353	9,440
	900.5	981	16,883
	1,386.1	135	4,956
	853.3	7	2,750
	1,242.3	482	11,781
	2,390.9	4,196	21,549
	2,100.0	741	28,000
	1,692.0	192	5,358
	932.0	1,336	3,590
	804.3	220	9,346
	200.6	30	2,612
	800.7	8	2,102
	1,221.2	1,171	9,057
	2,172.2	1,273	31,954
	3,300.1	1,650	42,243
	520.0	147	4,986
	1,307.4	168	4,183
	1,666.8	364	10,376
	966.9	853	11,042
	490.9	449	6,603
	860.5	409	12,500
	210.6	1	1,289
	318,049.7		2,533,792

RETURN ON STOCKHOLDERS' EQUITY

THE TEN HIGHEST

	RANK	
BANCO DO BRASIL	49	43.7%
STANDARD CHARTERED BANK	85	23.2
LLOYDS BANK	36	21.1
SVENSKA HANDELSBANKEN	98	19.9
NORINCHUKIN BANK	7	19.4
PKBANKEN	94	18.2
BANCO BILBAO VIZCAYA	65	17.6
TORONTO-DOMINION BANK	77	17.3
CHUO TRUST & BANKING	52	17.2
BANK OF CHINA	25	17.2
THE MEDIAN		10.2

CHANGE IN NET INCOME

THE TEN BIGGEST INCREASES*

	RANK	
TORONTO-DOMINION BANK	77	1246.5%
BANCO DI ROMA	73	741.6
BARCLAYS BANK	13	421.0
BANK MELLI IRAN	57	284.0
SUMITOMO BANK	2	208.2
BANCO DO BRASIL	49	191.1
NATIONAL WESTMINSTER BANK	18	130.9
COMMONWEALTH BANK	92	122.2
NATIONAL AUSTRALIA BANK	75	93.3
DAI-ICHI KANGYO BANK	1	85.0

THE FIVE BIGGEST DECREASES*

	RANK	
MONTE DEI PASCHI DI SIENA	67	20.1%
PKBANKEN	94	18.4
BANQUE FRANCAISE	89	6.8
CRÉDIT LYONNAIS	17	6.3
SVENSKA HANDELSBANKEN	98	5.5

*Not on last year's list.

ASSETS PER EMPLOYEE

THE TEN HIGHEST

	RANK	
ZENSHINREN BANK	43	$88,647,528
NORINCHUKIN BANK	7	74,595,095
LONG-TERM CREDIT BANK	15	55,381,565
INDUSTRIAL BANK OF JAPAN	6	51,089,163
NIPPON CREDIT BANK	29	50,449,749
MITSUBISHI TRUST & BANK	11	34,436,647
YASUDA TRUST & BANKING	22	31,191,747
SWEDBANK	100	29,798,583
SUMITOMO TRUST & BANKING	16	27,850,024
MITSUI TRUST & BANKING	20	27,571,866

THE FIVE LOWEST

	RANK	
COMMONWEALTH BANK	92	1,254,265
LLOYDS BANK	36	1,116,878
TRUSTEES SAVINGS BANK	93	942,906
BANCO DO BRASIL	49	592,228
STATE BANK OF INDIA	76	173,949
THE MEDIAN		$4,441,073

FOOTNOTES TO THE BANKS

• Not on last year's list.
N.A. Not available.

[1] Asset figures have been converted into U.S. dollars using the market rate at each bank's fiscal year-end, which is December 31, 1988, unless otherwise noted. Chuo Trust, Daiwa, Mitsubishi Trust, Mitsui Trust, Sumitomo Trust, Toyo Trust, and Yasuda Trust include holdings of major trusts in their assets.

[2] Deposit figures have been converted into U.S. dollars using the market rate at each bank's fiscal year-end. Figures for West German banks include their own bonds; so do figures for Bank of Tokyo, Industrial Bank of Japan, Long-Term Credit Bank of Japan, and Norinchukin Bank.

[3] Loan figures have been converted into U.S. dollars using the market rate at each bank's fiscal year-end. Figures include loans to banks and money at call or available on short notice.

[4] Net income figures have been converted into U.S. dollars using the average rate in the official exchange market during the bank's fiscal year. Net income is after taxes and excludes minority interest.

[5] Stockholders' equity figures have been converted into U.S. dollars using the market rate at each bank's fiscal year-end. Equity is the sum of capital stock, surplus, and retained earnings.

[6] Includes main office, branches, and agencies.

[7] Fiscal year-end March 31, 1988.

[8] Fiscal year-end September 30, 1988.

[9] Figures are unconsolidated.

[10] Government owned.

[11] Excludes some subsidiaries more than 50% owned.

[12] Fiscal year-end October 31, 1988.

[13] Fiscal year-end March 20, 1988.

[14] FORTUNE estimate.

[15] Fiscal year-end June 30, 1988.

THE 100 BIGGEST BANKS

THE BANKS BY COUNTRY

	1-50	51-100	Total	Largest company	Assets $millions	Rank
AUSTRALIA	0	4	4	WESTPAC BANKING	66,225.0	59
AUSTRIA	0	1	1	CREDITANSTALT-BANKVEREIN	39,265.7	96
BELGIUM	0	5	5	GÉNÉRALE DE BANQUE	62,615.0	63
BRAZIL	1	0	1	BANCO DO BRASIL	80,202.4	49
BRITAIN	4	2	6	BARCLAYS BANK	189,250.5	13
CANADA	1	4	5	ROYAL BANK OF CANADA	90,230.7	42
CHINA	1	0	1	BANK OF CHINA	149,997.5	25
FRANCE	5	6	11	CRÉDIT AGRICOLE	210,566.3	10
HONG KONG	1	0	1	HONGKONG & SHANGHAI BANKING	113,165.7	30
INDIA	0	1	1	STATE BANK OF INDIA	49,541.0	76
IRAN	0	1	1	BANK MELLI IRAN	72,817.0	57
ITALY	2	6	8	BANCA NAZIONALE DEL LAVORO	90,968.7	41
JAPAN	24	7	31	DAI-ICHI KANGYO BANK	379,322.8	1
NETHERLANDS	3	1	4	ALGEMENE BANK NEDERLAND	85,069.9	44
SOUTH KOREA	0	1	1	BANK OF SEOUL	41,434.9	88
SPAIN	0	1	1	BANCO BILBAO VIZCAYA	62,508.8	65
SWEDEN	0	4	4	SKANDINAVISKA ENSKILDA BANKEN	47,163.8	79
SWITZERLAND	2	1	3	UNION BANK OF SWITZERLAND	110,907.4	31
W. GERMANY	6	5	11	DEUTSCHE BANK	172,142.5	21

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BANCA NAZIONALE DEL LAVORO	41
BANCO BILBAO VIZCAYA	65
BANCO DI NAPOLI	70
BANCO DI ROMA	73
BANCO DO BRASIL	49
BANK BRUSSELS LAMBERT	80
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BANK OF CHINA	25
BANK OF MONTREAL	61
BANK OF NOVA SCOTIA	68
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BAYERISCHE LANDESBANK	50
BAYERISCHE VEREINSBANK	40
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